

## FIRESTONE ASPHALT SYSTEMS CODE APPROVAL GUIDE

	<b>Page No.</b>
<b>I. EXTERNAL FIRE RATINGS (CLASS A, B, C)</b>	3
<b>A. Firestone APP 160, APP 170, APP 180 - Ballasted Systems and     Firestone APP 160 Cool, APP 170 Cool, APP 180 Cool - Ballasted Systems</b>	
1. New Construction	4-5
2. Maintenance and Repair	6
<b>B. Firestone APP 180, APP 180 Cool</b>	
1. New Construction, w/o surfacings	7
<b>C. Firestone APP 180 FR and APP 180 FR Cool - Adhered Systems</b>	
1. New Construction, w/o surfacings	8-10
2. Maintenance and Repair	11-13
<b>D. Firestone APP 160, APP 170 or APP 180 - Adhered Systems and     Firestone APP 160 Cool, APP 170 Cool or APP 180 Cool - Adhered Systems</b>	
1. New Construction – w / surfacings	14-17
2. Maintenance and Repair – w / surfacings	18-20
3. Maintenance and Repair – w/o surfacings	21
<b>E. Firestone APP Premium FR</b>	
1. New Construction, w/o surfacings	22
<b>F. Firestone SBS, SBS Torch, SBS Premium, SBS Smooth -Ballasted Systems</b>	
1. New Construction	23
<b>G. Firestone SBS, SBS Torch, SBS Premium - Adhered Systems</b>	
1. New Construction - with Surfacings	24-25
2. New Construction - without Surfacing	26
<b>H. Firestone SBS FR, SBS FR Torch - Adhered Systems</b>	
1. New Construction	27-29
<b>I. Firestone SBS Premium FR, SBS Premium FR Torch - Adhered Systems</b>	
1. New Construction	30-31
<b>J. Firestone SBS Metal Flash-AL</b>	
1. New Construction	32-33
2. Maintenance and Repair	34
<b>K. Cold Adhesive Assemblies</b>	
1. New Construction – APP 180 FR Cool	35-36
4. New Construction – SBS Premium FR	37
5. New Construction – SBS FR	38
4. New Construction – APP Premium FR	39
<b>L. Built Up Roofing</b>	
1. New Construction	40-41
<b>II. INTERNAL FIRE RATINGS</b>	42
Underwriters Laboratories Roof Deck Constructions and “P” Assemblies	43
<b>III. FACTORY MUTUAL RATINGS</b>	44
<b>A. Firestone APP 160, APP 170, APP 180 or APP 180 FR - Adhered Systems</b>	
1. Mechanically attached insulation (steel, concrete)	44-47
2. Mopped insulation (concrete)	48-49
3. Light Weight Insulation concrete	50-52
<b>B. Firestone SBS, SBS Premium, SBS Smooth, SBS FR, SBS Premium FR</b>	
1. Mechanically attached insulation (steel, concrete)	53-67
2. Mechanically attached insulation Recover (steel, concrete)	68
3. Mechanically attached Base Sheet (steel, concrete)	69
4. Mopped insulation (concrete)	70-71
5. Mechanically attached base sheet (lightweight concrete)	72-76
<b>C. Firestone SBS Torch, SBS FR Torch, SBS Premium FR Torch</b>	
1. Mechanically attached base sheet (steel, concrete)	77-81
2. Mechanically attached insulation (steel, concrete)	82

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

<b>D. Firestone SBS, SBS Premium, SBS Smooth, SBS FR, SBS Premium FR</b>	
1. Mechanically attached insulation, Cold adhesive (steel, concrete)	83-85
2. Cold Adhesive (concrete)	86-88
<b>E. Firestone APP 160 Cool, APP 170 Cool, APP 180 Cool, APP 180 FR Cool</b>	
1. Mechanically attached insulation or base sheet, cold adhesive (steel, concrete)	89-91
2. Concrete	92
<b>F. Firestone MB Base SA w/ SBS torch, SBS FR torch, SBS Premium FR torch</b>	
1. Mechanically attached insulation (steel)	93-94
2. Concrete	95-99
<b>G. Firestone MB Base SA w/ APP 160 Cool, APP 170 Cool, APP 180 Cool, APP 180 FR Cool</b>	
1. Mechanically attached insulation (steel)	100-101
2. Concrete	102-105
<b>H. Firestone MB Base SA w/ SBS torch, SBS FR torch, SBS Premium FR torch</b>	
1. I.S.O. Fix attached insulation (concrete recover)	106
<b>I. Firestone MB Base SA w/ APP 160 Cool, APP 170 Cool, APP 180 Cool, APP 180 FR Cool</b>	
1. I.S.O. Fix attached insulation (concrete recover)	107
<b>J. Firestone BUR</b>	
1. Mechanically attached insulation (steel, concrete)	108-115
2. Mopped insulation (concrete)	116-117
3. Light weight insulating concrete	118-121
<b>G. Insulation attachment patterns</b>	122-124
<b>H. Base Sheet attachment rates</b>	125
 <b>IV. NATIONAL, REGIONAL AND LOCAL CODES</b>	 126

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## I. EXTERNAL FIRE RATINGS

All regional building codes and most local building code officials require that roofing systems meet minimum performance requirements when exposed to external fire sources. The accepted method for measuring external fire resistance is ASTM Standard E-108. This test standard, and closely related standards such as Underwriters Laboratories UL-790 and Uniform Building Code 15-2, are used to determine the ability of a roof system to hinder the horizontal spread or vertical penetration of an external fire source.

Noncombustible Roof Decks (Steel, Concrete, Poured Gypsum) require testing for horizontal spread of flame.

Combustible Roof Decks (Wood, Plywood, Tectum) require testing for both horizontal spread and vertical penetration of flame.

ASTM E-108, UL-790 and UBC 15-2 All classified roof covering assemblies fall into one of the three following categories:

CLASS A: "... includes roof coverings which are effective against severe fire exposures..." \*

CLASS B: "... includes roof coverings which are effective against moderate fire exposures..." \*

CLASS C: "... includes roof coverings which are effective against light fire exposures..." \*

For insulated assemblies over non-combustible roof decks, any classified roofing assembly may be installed over a new roof deck, an existing roof deck or over an existing roofing assembly. Underwriters Laboratories states that "any classified roofing system may be applied over a pre-existing roof system (Class A, B, C, verifiable or not) **of the same deck type** and establishes for that roof the classification of the new system." Also, an assembly classified over a combustible deck may be installed over an existing non-combustible deck and establish for the assembly the rating of the new system. A non-combustible deck rated assembly **must** be tested and classified over a combustible deck in order to obtain the desired classification of the new assembly. Total insulation thickness of combined existing and new roofing systems may not exceed the total maximum allowable for the new roofing system, and non-insulated systems are not intended for use over insulated systems.

The class of roof covering required by each regional building code depends upon many factors, including the use and location of the building and the type of construction. The local building authority should always be consulted as to which class of roof covering will be acceptable for each roofing project.

It should be noted that these classifications apply to roofing assemblies, and **not** roofing membranes. A roofing membrane that is classified as part of a Class A assembly when installed over a particular insulation may not qualify as part of a Class A assembly with another insulation.

The column titled "UL Item Number" in the following listings has been added as a service to those who have the UL Building Materials Directory. It identifies the UL listing from which our Code Approval Guide listing derives (e.g. "A,FA,23" means Class A, Fully Adhered, item number 23; "C,MR,03" means Class C, Maintenance and Repair, item number 03, etc.).

\* From Underwriters Laboratories Roofing Materials and Systems Directory, January 2006, page 1.

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**UL CLASS A, B, C**

**SYSTEM:** **BALLASTED OR PROTECTED MEMBRANE**  
**MEMBRANE:** **FIRESTONE APP 160, APP 170 or APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool**  
**DECK:** **COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)**

<b>Max Slope</b>	<b>Class</b>	<b>Deck</b>	<b>Insulation Assembly</b>	<b>Remarks</b>	<b>UL Item No.</b>
3	A	C	Deck: Insulation: (optional) any thickness a) Any UL Classified (except polystyrene) Base Sheet: (optional) one or more a) Firestone MB Base Sheet M , MA or HM b) Firestone Type IV (4) M, HM c) Firestone Type VI (6) M, HM d) Firestone APP 80 Glass Base, MA or heat fused e) Firestone APP 80 Glass Base Cool, MA or heat fused f) Type G1, G2, G3 Membrane: heat fused a) APP 160, APP 170, APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool Insulation: a) Dow "Light Guard"	1	A,BA,10
2	A	C	Deck: Insulation: (optional ) any thickness, any combination a) Any UL Classified (except polystyrene) Base Sheet: (optional) one or more a) Firestone MB Base Sheet M, MA or HM b) Firestone Type IV (4) M, HM c) Firestone Type VI (6) M, HM d) Firestone APP 80 Glass Base, MA or heat fused e) Firestone APP 80 Glass Base Cool, MA or heat fused f) Type G1, G2, G3 Membrane: heat fused a) APP 160, APP 170, APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool Slip Sheet: (optional) a) Fiberglass mat (between insulation and membrane only) Insulation: (optional) a) Dow Chemical "Styrofoam RM, PD, SM, TG, or Styrorib"-Min.. 1 inch Scrim: (optional) a) Fabrene (not UL Classified) b) International Paper D 689 (not UL Classified) c) Rufon Polypropylene (2oz./sq.yd.) (not UL Classified) Ballast: a) 900 lb/sq. (min.) river bottom stone (3/4 to 1-3/4 inch diameter) b) Pavers (min. 10 lb./sq. ft., not more than 1/8 inch apart)	1	A,BA,09

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- 1) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.
- 2) UL Classification can be maintained at the slope indicated over a combustibile deck by incorporating ½” gypsum board or ¼” Georgia-Pacific “Dens-Deck” directly on the combustibile deck.

**UL CLASS A, B, C**

**SYSTEM: BALLASTED OR PROTECTED MEMBRANE**  
**MEMBRANE: FIRESTONE APP 160, APP 170 or APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool**  
**DECK: COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)**

Max Slope	Class	Deck	Insulation Assembly	Remarks	UL Item No.
1 ½	A	C	Deck: Insulation: (optional) any thickness a) Any UL Classified (except polystyrene) Base Sheet: (HM or MA) one or more a) Firestone MB Base Sheet M b) Firestone APP 80 Glass Base, MA or heat fused c) Firestone APP 80 Glass Base Cool, MA or heat fused Membrane: heat fused a) APP 160, APP 170, APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool Ballast: loose or set in hot roofing asphalt a) 400 lb/sq. roofing gravel b) 300 lb/sq. slag	1	A,BA,07
1	A	NC	Deck: Insulation: (optional) any thickness a) Any UL Classified (except polystyrene) Base Sheet: (optional) one or more a) Firestone MB Base Sheet M, MA or HM b) Firestone Type IV (4) M, HM c) Firestone Type VI (6) M, HM d) Firestone APP 80 Glass Base, MA or heat fused e) Firestone APP 80 Glass Base Cool, MA or heat fused f) Type G1, G2, G3 Membrane: heat fused a) APP 160, APP 170, APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool Ballast: loose or set in hot roofing asphalt a) 400 lb/sq. roofing gravel b) 300 lb/sq. slag	1	A,BA,08

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- 2) UL Classification can be maintained at the slope indicated over a combustible deck by incorporating ½” gypsum board or ¼” Georgia-Pacific “Dens-Deck” directly on the combustible deck.

**UL CLASS A, B, C**

**SYSTEM: MAINTENANCE AND REPAIR (BALLASTED)**  
**MEMBRANE: FIRESTONE APP 160, APP 170 or APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool**  
**DECK: COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)**

Max Slope	Class	Deck	Insulation Assembly	Remarks	UL Item No.
1	A	C	Deck: Existing roof system: UL Class A, B, or C covered with Insulation: (optional) any thickness a) Any UL Classified (except polystyrene) Base Sheet: one or more layers (HM or MA) a) Firestone MB Base Sheet M b) Firestone APP 80 Glass Base , MA or heat fused c) Firestone APP 80 Glass Base Cool, MA or heat fused Membrane: heat fused (one or more layers) a) APP 160, APP 170, APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool Ballast: loose or set in hot roofing asphalt a) 400 lb/sq. roofing gravel b) 300 lb/sq. slag	1	A,MR,04

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- 2) UL Classification can be maintained at the slope indicated over a combustible deck by incorporating ½" gypsum board or ¼" Georgia-Pacific "Dens-Deck" directly on the combustible deck.

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## UL CLASS A, B, C

**SYSTEM:** ADHERED w/o SURFACINGS  
**MEMBRANE:** FIRESTONE APP 180, APP 180 Cool  
**DECK:** COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)

Max Slope	Class	Deck	Insulation Assembly	Remarks	UL Item No.
½	A	C	Deck: Barrier Board: MA a) min. 1/4" Dens-Deck b) min 1/4" Dens-Deck Prime Membrane: heat fused a) Firestone APP 180 b) Firestone APP 180 Cool	1	A,FA,114
½	A	NC	Deck: (concrete) Barrier Board: (optional) MA a) min. 1/4" Dens-Deck b) min 1/4" Dens-Deck Prime Membrane: heat fused a) Firestone APP 180 b) Firestone APP 180 Cool	1	A,FA,115
¼	A	C	Deck: Barrier Board: MA a) min. 1/4" Dens-Deck b) min 1/4" Dens-Deck Prime Base Sheet: one layer, HM, MA or heat fused a) Firestone MB Base Sheet M b) Firestone APP 80 Glass Base c) Firestone APP 80 Glass Base Cool d) Type G2 Membrane: heat fused a) Firestone APP 180 b) Firestone APP 180 Cool	1	A,FA,116
¼	A	NC	Deck: (concrete) Barrier Board: (optional) MA a) min. 1/4" Dens-Deck b) min 1/4" Dens-Deck Prime Base Sheet: one layer, HM, MA or heat fused a) Firestone MB Base Sheet M b) Firestone APP 80 Glass Base c) Firestone APP 80 Glass Base Cool d) Type G2 Membrane: heat fused a) Firestone APP 180 b) Firestone APP 180 Cool	1	A,FA,117

- 1) I.I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.
- 2) UL Classification can be maintained at the slope indicated over a combustible deck by incorporating ½" gypsum board or ¼" Georgia-Pacific "Dens-Deck" directly on the combustible deck.

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## UL CLASS A, B, C

**SYSTEM:** ADHERED w/o SURFACINGS  
**MEMBRANE:** FIRESTONE APP 180 FR or APP 180 FR Cool  
**DECK:** COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)

Max Slope	Class	Deck	Insulation Assembly	Remarks	UL Item No.
2	A	NC / C(2)	Deck: Insulation: (optional) <ul style="list-style-type: none"> <li>a) any UL Classified, any thick (EPS must be covered with min. 1/2" wood fiber, glass fiber or perlite)</li> </ul> Base Sheet: One or more plies <ul style="list-style-type: none"> <li>a) Firestone MB Base Sheet M</li> <li>b) Firestone Type IV (4) M,</li> <li>c) Firestone Type VI (6) M</li> <li>d) Firestone APP 80 Glass Base, MA or heat fused</li> <li>e) Firestone APP 80 Glass Base Cool, MA or heat fused</li> <li>f) Type G1, Type G2 or Type G3</li> </ul> Ply Sheet: (optional) one or more plies, heat fused <ul style="list-style-type: none"> <li>a) APP 160</li> <li>b) APP 170</li> </ul> Membrane: heat fused <ul style="list-style-type: none"> <li>a) APP 180 FR or APP 180 FR Cool</li> </ul> Surfacing: (optional) <ul style="list-style-type: none"> <li>a) Firestone Acrylic Base Coat for Asphalt (1-1/2 gal/sq) followed by Firestone PC-100 at 1 gal/sq</li> </ul>	1	A,FA,70
½	A	C	Deck: Insulation: (optional) <ul style="list-style-type: none"> <li>a) Perlite, min. 15/16"</li> <li>b) Fiberglass , min. 15/16"</li> <li>c) Isocyanurate, min. 2"</li> <li>d) ISO 95+ GL or ISO 300, min 2"</li> </ul> Base Sheet: two or more plies, MA, HM or spot mopped <ul style="list-style-type: none"> <li>a) Firestone MB Base Sheet M</li> <li>b) Firestone APP 80 Glass Base, Ma or heat fused</li> <li>c) Firestone APP 80 Glass Base Cool, MA or heat fused</li> <li>d) any Type G2 (min. 23#/sq)</li> </ul> Ply Sheet: (optional) heat fused <ul style="list-style-type: none"> <li>a) APP 160</li> <li>b) APP 170</li> </ul> Membrane: heat fused <ul style="list-style-type: none"> <li>a) APP 180 FR or APP 180 FR Cool</li> </ul> Surfacing: (optional) <ul style="list-style-type: none"> <li>a) Firestone Acrylic Base Coat for Asphalt (1-1/2 gal/sq) followed by Firestone PC-100 at 1 gal/sq</li> </ul>	1	A,FA,79 A,FA,86

- 1) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.

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- 2) UL Classification can be maintained at the slope indicated over a combustibile deck by incorporating ½” gypsum board or ¼” Georgia-Pacific “Dens-Deck” directly on the combustibile deck.

**UL CLASS A, B, C**

**SYSTEM: ADHERED w/o SURFACINGS**  
**MEMBRANE: FIRESTONE APP 180 FR or APP 180 FR Cool**  
**DECK: COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)**

<b>Max Slope</b>	<b>Class</b>	<b>Deck</b>	<b>Insulation Assembly</b>	<b>Remarks</b>	<b>UL Item No.</b>
½	A	NC / C(2)	Deck: Insulation (optional) <ul style="list-style-type: none"> <li>a) ISO 95+ GL, any thickness (MA)</li> </ul> Base Sheet: one layer <ul style="list-style-type: none"> <li>a) SBS Glass Base SA</li> <li>b) MB Glass Base SA</li> <li>c) APP 80 Glass Base, MA or heat fused</li> <li>d) APP 80 Glass Base Cool, MA or heat fused</li> </ul> Membrane: heat fused <ul style="list-style-type: none"> <li>a) APP 180 FR or APP 180 FR Cool</li> </ul> Surfacing: (optional) <ul style="list-style-type: none"> <li>a) Firestone Acrylic Base Coat for Asphalt (1-1/2 gal/sq) followed by Firestone PC-100 at 1 gal/sq</li> </ul>	1	A,FA,142
½	B	C	Deck: Base Sheet: one or more plies, MA, HM <ul style="list-style-type: none"> <li>a) Firestone MB Base Sheet M</li> <li>b) Firestone APP 80 Glass Base, Ma or heat fused</li> <li>c) Firestone APP 80 Glass Base Cool, MA or heat fused</li> <li>d) any Type G2 (min. 25#/sq)</li> </ul> Ply Sheet: (optional) heat fused <ul style="list-style-type: none"> <li>a) APP 160</li> <li>b) APP 170</li> </ul> Membrane: heat fused <ul style="list-style-type: none"> <li>a) APP 180 FR or APP 180 FR Cool</li> </ul> Surfacing: (optional) <ul style="list-style-type: none"> <li>a) Firestone Acrylic Base Coat for Asphalt (1-1/2 gal/sq) followed by Firestone PC-100 at 1 gal/sq</li> </ul>	1	B,FA,14

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- 2) UL Classification can be maintained at the slope indicated over a combustible deck by incorporating ½" gypsum board or ¼" Georgia-Pacific "Dens-Deck" directly on the combustible deck.

**UL CLASS A, B, C**

**SYSTEM: ADHERED w/o SURFACINGS**  
**MEMBRANE: FIRESTONE APP 180 FR or APP 180 FR Cool**  
**DECK: COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)**

<b>Max Slope</b>	<b>Class</b>	<b>Deck</b>	<b>Insulation Assembly</b>	<b>Remarks</b>	<b>UL Item No.</b>
½	B	C	Deck: Insulation: any UL Classified, HM or MA <ol style="list-style-type: none"> <li>a) ISO 95+ GL, min. 1-1/2"</li> <li>b) Isocyanurate, min. 1-1/2"</li> <li>c) Perlite/Isocyanurate, min. 1-1/2"</li> <li>d) Wood Fiber, min. 1"</li> <li>e) Perlite, min. 3/4"</li> <li>f) Glass Fiber, min. 15/16"</li> </ol> Insulation : (optional ) any UL Classified MA, HM <ol style="list-style-type: none"> <li>a) Wood Fiber, min. 1/2"</li> <li>b) Glass Fiber, min. 1/2"</li> <li>c) Perlite, min. 1/2"</li> </ol> Base Sheet: one or more plies, MA, HM <ol style="list-style-type: none"> <li>a) Firestone MB Base Sheet M</li> <li>b) Firestone APP 80 Glass Base, MA or heat fused</li> <li>c) Firestone APP 80 Glass Base Cool, MA or heat fused</li> <li>d) any Type G2 (min. 25#/sq)</li> </ol> Ply Sheet: (optional) one or more plies, heat fused <ol style="list-style-type: none"> <li>a) APP 160</li> <li>b) APP 170</li> </ol> Membrane: heat fused <ol style="list-style-type: none"> <li>a) APP 180 FR or APP 180 FR Cool</li> </ol> Surfacing: (optional) <ol style="list-style-type: none"> <li>a) Firestone Acrylic Base Coat for Asphalt (1-1/2 gal/sq) followed by Firestone PC-100 at 1 gal/sq</li> </ol>	1	B,FA,15

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- 2) UL Classification can be maintained at the slope indicated over a combustible deck by incorporating ½” gypsum board or ¼” Georgia-Pacific “Dens-Deck” directly on the combustible deck.

### UL CLASS A, B, C

**SYSTEM: MAINTENANCE AND REPAIR**  
**MEMBRANE: FIRESTONE APP 180 FR or APP 180 FR Cool**  
**DECK: COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)**

Max Slope	Class	Deck	Insulation Assembly	Remarks	UL Item No.
1	A	NC	Existing roof system: UL Class A, B, or C covered with Insulation: any thickness a) ISO 95+ GL b) Any UL Classified insulation (except polystyrene) Base Sheet: mechanically attached or hot mopped a) Firestone MB Base Sheet M b) Firestone APP 80 Glass Base, MA or heat fused c) Firestone APP 80 Glass Base Cool, MA or heat fused d) Type G2 Membrane: heat fused a) APP 180 FR or APP 180 FR Cool Surfacing: a) gravel, 400 lbs./sq loose laid or set in hot asphalt b) slag, 300 lbs./sq loose laid or set in hot asphalt	1	A,MR,04
1	A	NC	Existing roof system: UL Class A, B, or C (gravel may be removed), covered with Insulation: (optional) any thickness a) ISO 95+ GL b) Any UL Classified insulation (except polystyrene) Base Sheet: mechanically attached or hot mopped a) Firestone MB Base Sheet M b) Firestone APP 80 Glass Base, MA or heat fused c) Firestone APP 80 Glass Base Cool, MA or heat fused d) Firestone Type IV (4) M or Type VI(6) M e) Type G1, Type G2 or Type G3 Membrane: heat fused a) APP 180 FR or APP 180 FR Cool Surfacing: (optional) a) Firestone Acrylic Base Coat for Asphalt (1-1/2 gal/sq) followed by Firestone PC-100 at 1 gal/sq	1	A,MR,09 A,MR,11

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- 2) UL Classification can be maintained at the slope indicated over a combustibile deck by incorporating ½” gypsum board or ¼” Georgia-Pacific “Dens-Deck” directly on the combustibile deck.

**UL CLASS A, B, C**

**SYSTEM: MAINTENANCE AND REPAIR**  
**MEMBRANE: FIRESTONE APP 180 FR or APP 180 FR Cool**  
**DECK: COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)**

<b>Max Slope</b>	<b>Class</b>	<b>Deck</b>	<b>Insulation Assembly</b>	<b>Remarks</b>	<b>UL Item No.</b>
½	A	C	Existing roof system: UL Class A covered with Ply Sheet: a) Firestone MB Base Sheet M b) Firestone APP 80 Glass Base, MA or heat fused c) Firestone APP 80 Glass Base Cool, MA or heat fused d) Firestone Type IV (4) M or Type VI(6) M Membrane: heat fused a) APP 180 FR or APP 180 FR Cool Surfacing: (optional) a) Firestone Acrylic Base Coat for Asphalt (1-1/2 gal/sq) followed by Firestone PC-100 at 1 gal/sq		A,MR,10
½	B	C	Existing roof system: UL Class A, B, or C covered with Insulation: (optional) any thickness a) ISO 95+ GL b) any UL Classified (except polystyrene) Base Sheet: two or more layers a) Firestone MB Base Sheet M b) Firestone APP 80 Glass Base, MA or heat fused c) Firestone APP 80 Glass Base Cool, MA or heat fused Membrane: heat fused a) APP 180 FR or APP 180 FR Cool Surfacing: (optional) a) Firestone Acrylic Base Coat for Asphalt (1-1/2 gal/sq) followed by Firestone PC-100 at 1 gal/sq	1	B,MR,04
½	B	C	Existing roof system: UL Class B covered with Base Sheet: (optional) a) Firestone MB Base Sheet M b) Firestone APP 80 Glass Base, MA or heat fused c) Firestone APP 80 Glass Base Cool, MA or heat fused d) Firestone Type IV (4) M or Type VI(6) M Membrane: heat fused a) APP 180 FR or APP 180 FR Cool Surfacing: (optional) a) Firestone Acrylic Base Coat for Asphalt (1-1/2 gal/sq) followed by Firestone PC-100 at 1 gal/sq		B,MR,05

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

- 1) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.
- 2) UL Classification can be maintained at the slope indicated over a combustible deck by incorporating ½” gypsum board or ¼” Georgia-Pacific “Dens-Deck” directly on the combustible deck.

### UL CLASS A, B, C

**SYSTEM: MAINTENANCE AND REPAIR**  
**MEMBRANE: FIRESTONE APP 180 FR or APP 180 FR Cool**  
**DECK: COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)**

Max Slope	Class	Deck	Insulation Assembly	Remarks	UL Item No.
½	B	C	Existing roof system: UL Class A, B, or C covered with Insulation: one layer <ol style="list-style-type: none"> <li>a) Firestone ISO 95+ GL, min 1”</li> <li>b) Isocyanurate, min. 1”</li> <li>c) 11/16 glass fiber</li> </ol> Base Sheet: one or more layers <ol style="list-style-type: none"> <li>a) Firestone MB Base Sheet M</li> <li>b) Firestone APP 80 Glass Base, MA or heat fused</li> <li>c) Firestone APP 80 Glass Base Cool, MA or heat fused</li> </ol> Membrane: heat fused <ol style="list-style-type: none"> <li>a) APP 180 FR or APP 180 FR Cool</li> </ol> Surfacing: (optional) <ol style="list-style-type: none"> <li>a) Firestone Acrylic Base Coat for Asphalt (1-1/2 gal/sq) followed by Firestone PC-100 at 1 gal/sq</li> </ol>	1	B,MR,06

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

- 1) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.
- 2) UL Classification can be maintained at the slope indicated over a combustible deck by incorporating ½” gypsum board or ¼” Georgia-Pacific “Dens-Deck” directly on the combustible deck

**UL CLASS A, B, C**

**SYSTEM:** ADHERED w/SURFACINGS  
**MEMBRANE:** FIRESTONE APP 160, APP 170 or APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool  
**DECK:** COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)

Max Slope	Class	Deck	Insulation Assembly	Remarks	UL Item No.
1	A	C	Deck: Insulation: (optional) any thickness a) Any UL Classified Barrier Board: (may be placed above or below the insulation, if polystyrene is used barrier board <u>must</u> be placed above the polystyrene) a) 1/2" water resistant gypsum b) min. ¼” Dens-Deck Base Sheet: a) Firestone MB Base Sheet M b) Firestone APP 80 Glass Base, MA or heat fused c) Firestone APP 80 Glass Base Cool, MA or heat fused d) Firestone Type IV (4) M or Type VI (6) M e) Type G1, G2, G3 Membrane: heat fused a) APP 160, APP 170, APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool Surfacing: a) Firestone Aluminum Fibered Roof Coating, @1-1/2 gla/sq b) Karnak “No. 97 AF” @ 1-1/2 gal/sq.	1	A,FA,31
½	A	C	Deck: Insulation: (optional) any thickness a) Any UL Classified Barrier Board: (may be placed above or below the insulation, if polystyrene is used barrier board <u>must</u> be placed above the polystyrene) a) 1/2" regular wallboard gypsum (“Dens-Deck”) Base Sheet: a) Firestone MB Base Sheet M b) Firestone APP 80 Glass Base, MA or heat fused c) Firestone APP 80 Glass Base Cool, MA or heat fused d) Type G1, G2, G3 Membrane: , heat fused a) APP 160, APP 170, APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool Surfacing: a) Firestone Aluminum Fibered Roof Coating, @1-1/2 gal/sq b) Karnak "No. 169" @ 1 gal/sq.	1	A,FA,32

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

c) Karnak "No. 97 AF" @ 1-1/2 gal/sq.

- 1) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.
- 2) UL Classification can be maintained at the slope indicated over a combustible deck by incorporating ½" gypsum board or ¼" Georgia-Pacific "Dens-Deck" directly on the combustible deck.

**UL CLASS A, B, C**

**SYSTEM: ADHERED w/SURFACINGS**  
**MEMBRANE: FIRESTONE APP 160, APP 170 or APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool**  
**DECK: COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)**

Max Slope	Class	Deck	Insulation Assembly	Remarks	UL Item No.
1	A	NC / C(2)	Deck: Insulation: any thickness a) any UL Classified Base Sheet: a) Firestone MB Base Sheet M b) Firestone APP 80 Glass Base, MA or heat fused c) Firestone APP 80 Glass Base Cool, MA or heat fused d) Type G1, G2, G3 Membrane: heat fused a) APP 160, APP 170, APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool Surfacing: a) Firestone Aluminum Fibered Roof Coating, @ 1-1/2 gal/sq b) Karnak "No. 169" @ 1 gal/sq. c) Karnak "No. 97 AF" @ 1-1/2 gal/sq.	1	A,FA,33
½	A	NC / C(2)	Deck: Insulation: any thickness (HM or MA) a) Any UL Classified (except polystyrene) Base Sheet: (HM or MA) a) Firestone MB Base Sheet M b) Firestone APP 80 Glass Base, MA or heat fused c) Firestone APP 80 Glass Base Cool, MA or heat fused d) Type G2 Membrane: heat fused a) APP 160, APP 170, APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool Surfacing: a) Henry Co. "Henry 520 Aluminum" @ 1 1/2 gal/sq	1	A,FA,67

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

- 1) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.
- 2) UL Classification can be maintained at the slope indicated over a combustible deck by incorporating ½” gypsum board or ¼” Georgia-Pacific “Dens-Deck” directly on the combustible deck.

### UL CLASS A, B, C

**SYSTEM:** ADHERED w/SURFACINGS  
**MEMBRANE:** FIRESTONE APP 160, APP 170 or APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool  
**DECK:** COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)

Max Slope	Class	Deck	Insulation Assembly	Remarks	UL Item No.
¼	A	NC / C(2)	Deck: Insulation: a) Min. 1/2" UL Classified Wood Fiberboard over Polystyrene (extruded or expanded)-min. 1 inch Base Sheet: one or more layers (HM or MA) a) Firestone MB Base Sheet M b) Firestone APP 80 Glass Base, MA or heat fused c) Firestone APP 80 Glass Base Cool, MA or heat fused Membrane: heat fused a) APP 160, APP 170, APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool Surfacing: a) Firestone Aluminum Fibered Roof Coating, @1-1/2 gal/sq b) Karnak “No. 97 AF” @ 1-1/2 gal/sq.	1	A,FA,28
½	B	C 5/8” TG	Deck: Base Sheet: one or more (HM or MA) a) Firestone MB Base Sheet M b) Firestone APP 80 Glass Base,MA or heat fused c) Firestone APP 80 Glass Base Cool, MA or heat fused d) Any UL Classified G-2 (min. weight 23#/sq.) Membrane: , heat fused a) APP 160, APP 170, APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool Surfacing: a) Firestone Aluminum Fibered Roof Coating, @1-1/2 gal/sq b) Karnak 97AF @ 1 1/2 gal/sq		B,FA,12

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

- 1) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.
- 2) UL Classification can be maintained at the slope indicated over a combustibile deck by incorporating 1/2" gypsum board or 1/4" Georgia-Pacific "Dens-Deck" directly on the combustibile deck.

### UL CLASS A, B, C

**SYSTEM:** ADHERED w/SURFACINGS  
**MEMBRANE:** FIRESTONE APP 160, APP 170 or APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool  
**DECK:** COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)

Max Slope	Class	Deck	Insulation Assembly	Remarks	UL Item No.
1/4	B	C	Deck: Insulation: (optional) any thickness a) Any UL Classified (except polystyrene) Base Sheet: 2 layers a) Firestone MB Base Sheet M b) Firestone APP 80 Glase Base, MA or heat fused c) Firestone APP 80 Glass Base Cool, MA or heat fused d) Manville "Glasbase" or in lieu of one layer of base sheet install the following: a) Polyisocyanurate (min. 1 inch) b) any UL classified (except EPS) insulation 1" min. covered with optional: 1. 1/2" min. wood fiberboard 2. 1/2" min. gypsum wallboard 3. 1/2" min. Perlite 4. 11/16" min. glass fiber Membrane: heat fused a) APP 160, APP 170, APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool Surfacing: a) Firestone Aluminum Fibered Roof Coating, @1-1/2 gal/sq b) Karnak "No. 97 AF" @ 1-1/2 gal/sq.	1	B,FA,04
1/4	B	C	Deck: Insulation: a) Min.1/2" Wood Fiberboard over polystyrene (extruded or expanded)-min. 1 inch Base Sheet: one or more layers (HM) b) Firestone MB Base Sheet M c) Firestone APP 80 Glass Base, MA or heat fused d) Firestone APP 80 Glass Base Cool, MA or heat fused Membrane: heat fused a) APP 160, APP 170, APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool Surfacing: a) Firestone Aluminum Fibered Roof Coating, @1-1/2 gal/sq b) Karnak "No. 97 AF" @ 1-1/2 gal/sq.	1	B,FA,05

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

- 1) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.
- 2) UL Classification can be maintained at the slope indicated over a combustible deck by incorporating ½” gypsum board or ¼” Georgia-Pacific “Dens-Deck” directly on the combustible deck.

**UL CLASS A, B, C**

**SYSTEM:** MAINTENANCE AND REPAIR (ADHERED-w/SURFACINGS)  
**MEMBRANE:** FIRESTONE APP 160, APP 170 or APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool  
**DECK:** COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)

Max Slope	Class	Deck	Insulation Assembly	Remarks	UL Item No.
1	A	NC	Deck: Existing roof system: UL Class A, B, or C (gravel may be removed) Insulation: (optional) any thickness a) Any UL Classified (except polystyrene) Base Sheet: one or more a) Firestone MB Base Sheet M, MA or HM b) Firestone APP 80 Glass Base, MA or heat fused c) Firestone APP 80 Glass Base Cool, MA or heat fused d) Firestone Type IV (4) M, HM e) Firestone Type VI (6) M, HM f) Type G1, G2 g) Type G3 (Granule surfaced) inverted Membrane: heat fused a) APP 160, APP 170, APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool Surfacing: a) Firestone Aluminum Fibered Roof Coating at 1-1/2 gal/sq b) Karnak “No. 169” @ 1 gal/sq. c) Karnak “No. 97 AF” @ 1-1/2 gal/sq.)	1	A,MR,01 A,MR,03
½	A	C	Existing roof system: UL Class A Ply Sheet: one or more a) Firestone MB Base Sheet M b) Firestone APP 80 Glass Base, MA or heat fused c) Firestone APP 80 Glass Base Cool, MA or heat fused Membrane: heat fused a) APP 160, APP 170, APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool Surfacing: a) Firestone Aluminum Fibered Roof Coating, @1-1/2 gal/sq b) Karnak “No. 97 AF” @ 1-1/2 gal/sq.		A,MR,02

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

- 1) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.
- 2) UL Classification can be maintained at the slope indicated over a combustible deck by incorporating ½” gypsum board or ¼” Georgia-Pacific “Dens-Deck” directly on the combustible deck.

**UL CLASS A, B, C**

**SYSTEM: MAINTENANCE AND REPAIR (ADHERED-w/SURFACINGS)**  
**MEMBRANE: FIRESTONE APP 160, APP 170 or APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool**  
**DECK: COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)**

Max Slope	Class	Deck	Insulation Assembly	Remarks	UL Item No.
½	B	C	Existing roof system: UL Class A, B, or C Insulation: (optional) any thickness a) Any UL Classified (except polystyrene) Base Sheet: 2 or more layers a) Firestone MB Base Sheet M b) Firestone APP 80 Glass Base, MA or heat fused c) Firestone APP 80 Glass Base Cool, MA or heat fused d) Manville “Glasbase” Membrane: heat fused a) APP 160, APP 170, APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool Surfacing: a) Firestone Aluminum Fibered Roof Coating, @ 1-1/2 gal/sq b) Karnak “No. 97 AF” @ 1-1/2 gal/sq.	1	B,MR,01
½	B	C	Existing roof system: UL Class B Base Sheet: (optional) one or more a) Firestone MB Base Sheet M b) Firestone APP 80 Glass Base, MA or heat fused c) Firestone APP 80 Glass Base Cool, MA or heat fused d) Type G1 e) Type G2 Membrane: heat fused a) APP 160, APP 170, APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool Surfacing: a) Karnak “97 AF” @ 1 gal/sq. b) Western Colloid “No. 298” @ 2 gal/sq with #11 Mineral Granules embedded into wet coating at 50 lbs/sq.		B,MR,02

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

- 1) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.
- 2) UL Classification can be maintained at the slope indicated over a combustible deck by incorporating ½" gypsum board or ¼" Georgia-Pacific "Dens-Deck" directly on the combustible deck.

### UL CLASS A, B, C

**SYSTEM:** MAINTENANCE AND REPAIR (ADHERED-w/SURFACINGS)  
**MEMBRANE:** FIRESTONE APP 160, APP 170 or APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool  
**DECK:** COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)

Max Slope	Class	Deck	Insulation Assembly	Remarks	UL Item No.
½	B	C	Existing roof system: UL Class A,B,C Insulation: one layer <ol style="list-style-type: none"> <li>a) Any UL Classified polyisocyanurate min. 1"</li> <li>b) Glass Fiber (min. 11/16 inch)</li> </ol> Base Sheet: one or more layer <ol style="list-style-type: none"> <li>b) Firestone MB Base Sheet M</li> <li>c) Firestone APP 80 Glass Base, MA or heat fused</li> <li>d) Firestone APP 80 Glass Base Cool, MA or heat fused</li> </ol> Membrane: heat fused <ol style="list-style-type: none"> <li>a) APP 160, APP 170, APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool</li> </ol> Surfacing: <ol style="list-style-type: none"> <li>a) Firestone Aluminum Fibered Roof Coating, @1-1/2 gal/sq</li> <li>c) Karnak "No. 97 AF" @ 1 1/2 gal/sq.</li> </ol>	1	B,MR,03

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

- 1) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.
- 2) UL Classification can be maintained at the slope indicated over a combustible deck by incorporating ½" gypsum board or ¼" Georgia-Pacific "Dens-Deck" directly on the combustible deck.

**UL CLASS A, B, C**

**SYSTEM:** MAINTENANCE AND REPAIR (ADHERED- w/o SURFACINGS)  
**MEMBRANE:** FIRESTONE APP 160, APP 170 or APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool  
**DECK:** COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)

<b>Max Slope</b>	<b>Class</b>	<b>Deck</b>	<b>Insulation Assembly</b>	<b>Remarks</b>	<b>UL Item No.</b>
¼	C	C	Existing roof system: UL Class A, B, or C Insulation: (optional) attached with adhesive as Listed under adhesives, Roof Deck Construction Materials a) Perlite (¾ to 2 inches) b) Glass Fiber (¾ to 2 inches) Base Sheet: (optional) a) Firestone MB Base Sheet M b) Firestone APP 80 Glass Base, MA or heat fused c) Firestone APP 80 Glass Base Cool, MA or heat fused d) Firestone Type IV (4) M e) Firestone Type VI (6) M f) Type G1, G2, G3 Membrane: heat fused a) APP 160, APP 170, APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool	1	C,MR,01
¼	C	C	Existing roof system: UL Class A, B or C Insulation: (optional) hot mopped or mechanically attached a) Perlite (max. 2 inches) b) Glass Fiber (max. 2 inches) Base Sheet: (optional) (HM or MA) a) Firestone MB Base Sheet M b) Firestone APP 80 Glass Base, MA or heat fused c) Firestone Type IV (4) M d) Firestone Type VI (6) M e) Type G1, G2 Membrane: heat fused a) APP 160, APP 170, APP 180, APP 160 Cool, APP 170 Cool, APP 180 Cool	1	C,MR,02

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

- 1) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.
- 2) UL Classification can be maintained at the slope indicated over a combustible deck by incorporating ½” gypsum board or ¼” Georgia-Pacific “Dens-Deck” directly on the combustible deck.

**UL CLASS A, B, C**

**SYSTEM: ADHERED w/o SURFACINGS**  
**MEMBRANE: FIRESTONE APP Premium FR**  
**DECK: COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)**

<b>Max Slope</b>	<b>Class</b>	<b>Deck</b>	<b>Insulation Assembly</b>	<b>Remarks</b>	<b>UL Item No.</b>
½	A	C	Deck: Insulation: (opt) a) ISO 95+ GL, min. 2.0” b) Perlite, min. 15/16” c) Fiberglass, min. 15/16” Base Sheet: two or more plies a) MB Base Sheet M b) Type G2 (min. 23 lb/sq) Ply Sheet: (opt) heat fused a) APP 160 b) APP 170 Membrane: heat fused a) APP Premium FR Surfacing: (Opt) Acrylic Base Coat for Asphalt @1-1/2 gal/sq followed by PC-100 @ 1gal/sq		A,FA,79
1	A	NC	Deck: Insulation: (opt) a) ISO 95+ GL b) FiberTop, B,C E or S c) Perlite, min. 15/16” d) Fiberglass, min. 15/16” Base Sheet: heat fused a) APP Premium Base Membrane: heat fused a) APP Premium FR Surfacing: (Opt) Acrylic Base Coat for Asphalt @1-1/2 gal/sq followed by PC-100 @ 1gal/sq		A,FA,113
1/2	A	NC	Deck: Insulation: (opt) a) ISO 95+ GL, any thickness, MA Base Sheet: self adhered a) MB Base SA Membrane: heat fused a) APP Premium FR		A,FA,142

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

Surfacing|: (Opt) Acrylic Base Coat for Asphalt @1-1/2 gal/sq followed by PC-100 @ 1gal/sq

- a) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.
- b) UL Classification can be maintained at the slope indicated over a combustibile deck by incorporating 1/2" gypsum board or 1/4" Georgia-Pacific "Dens-Deck" directly on the combustibile deck.

### UL CLASS A, B, C

**SYSTEM:** BALLASTED  
**MEMBRANE:** Firestone SBS, SBS Torch, SBS Premium, SBS Smooth  
**DECK:** COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)

Max Slope	Class	Deck	Insulation Assembly	Remarks	UL Item No.
1	A	C	Deck: Insulation: (optional) any thickness a) Any UL Classified insulation (EPS <u>must</u> be covered with 1/2"min. glass fiber, perlite or wood fiber) Base Sheet: one or more plies, (HM or MA) a) Firestone MB Base Sheet M b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Firestone SBS Glass Torch Base e) Firestone Type IV (4) M , Type VI (6) M f) Type G1, G2, G3 Ply Sheet: (optional) one or more plies (HM or MA) a) Firestone SBS Smooth b) Firestone SBS Poly Base c) Firestone SBS Poly Torch Base Membrane: one or more plies, hot mopped or torched a) Firestone SBS, SBS Torch, SBS Premium, SBS Smooth Surfacing: a) Roofing gravel 400 lbs./sq. laid loose or set in hot roofing asphalt	1	A,FA,58
1 1/2	A	NC/C (2)	Deck: Insulation: (optional) any thickness a) Any UL Classified insulation(EPS <u>must</u> be covered with 1/2"min. wood fiber, glass fiber or perlite) Base Sheet: one or more plies, (HM or MA) a) Firestone MB Base Sheet M b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Firestone SBS Glass Torch Base e) Firestone Type IV (4) M, Type VI (6) M f) Type G1, G2, G3 Ply Sheet: (optional) one or more plies (HM or MA) a) Firestone SBS Smooth	1	A,FA,57

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

- b) Firestone SBS Poly Base
  - c) Firestone SBS Base Sheet
  - d) Firestone SBS Poly Torch Base
- Membrane: one or more plies, hot mopped or torched
- a) Firestone SBS, SBS Torch, SBS Premium, SBS Smooth
- Surfacing:
- a) Roofing gravel 400 lbs./sq/ laid loose or set in hot roofing asphalt

- 1) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.
- 2) UL Classification can be maintained at the slope indicated over a combustible deck by incorporating 1/2" gypsum board or 1/4" Georgia-Pacific "Dens-Deck" directly on the combustible deck.

**UL CLASS A, B, C**

**SYSTEM: ADHERED w/SURFACINGS**  
**MEMBRANE: Firestone SBS, SBS Torch, SBS Premium**  
**DECK: COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)**

Max Slope	Class	Deck	Insulation Assembly	Remarks	UL Item No.
1	A	NC / C(2)	Deck: Insulation: (optional) any thickness <ul style="list-style-type: none"> <li>a) Any UL Classified (EPS <u>must</u> be covered with min. 1/2" wood fiber, glass fiber, perlite or gypsum)</li> </ul> Base Sheet: one or more plies, (HM or MA) <ul style="list-style-type: none"> <li>a) Firestone MB Base Sheet M</li> <li>b) Firestone SBS Base Sheet</li> <li>c) Firestone SBS Premium Base Sheet</li> <li>d) Firestone SBS Poly Base</li> <li>e) Firestone SBS Ply Torch Base</li> <li>f) Firestone SBS Poly Glass Torch Base</li> <li>g) Type G1, G2, G3</li> </ul> Ply Sheet: (optional) one or more plies, (HM or MA) <ul style="list-style-type: none"> <li>a) Firestone SBS Smooth</li> <li>b) Firestone SBS Poly Base</li> <li>c) Firestone SBS Poly Torch Base</li> </ul> Membrane: one or more plies, hot mopped or torched <ul style="list-style-type: none"> <li>a) Firestone SBS, SBS Torch, SBS Premium</li> </ul> Surfacing: <ul style="list-style-type: none"> <li>a) Firestone Aluminum Fibered Roof Coating @ 1-1/2 gal/sq</li> <li>b) Karnak 97AF @ 1 1/2 gal/sq</li> </ul>	1	A,FA,59

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

- 1) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.
- 2) UL Classification can be maintained at the slope indicated over a combustibile deck by incorporating 1/2" gypsum board or 1/4" Georgia-Pacific "Dens-Deck" directly on the combustibile deck.

**UL CLASS A, B, C**

**SYSTEM: ADHERED w/SURFACINGS**  
**MEMBRANE: Firestone SBS, SBS Torch, SBS Premium**  
**DECK: COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)**

Max Slope	Class	Deck	Insulation Assembly	Remarks	UL Item No.
1/2	A	C	Deck: Base Sheet: two more plies (HM or MA) b) Firestone MB Base Sheet M c) Firestone SBS Base Sheet d) Firestone SBS Premium Base Sheet e) Firestone SBS Glass Torch Base f) Type G2 (min. 25#/sq.) Ply Sheet: (optional) one or more plies (HM or MA) a) Firestone SBS Smooth b) Firestone SBS Poly Base c) Firestone SBS Poly Torch Base Membrane: one or more plies, hot mopped or torched a) Firestone SBS, SBS Torch, SBS Premium Surfacing: a) Firestone Aluminum Fibered Roof Coating 2 1-1/2 gal/sq b) Karnak 97AF @ 1 1/2 gal/sq		A,FA,60
1/2	A	C	Deck: Insulation: a) Polyisocyanurate, Urethane, Polyisocyanurate/perlite or Urethane/perlite - 2" min. b) Glass fiber, Wood fiber or Perlite - 1" min. c) Insulations requiring 2" min thickness may use 1 1/2" min. thickness and then be covered by min. 1/2" wood fiber, glass fiber, perlite, or gypsum Base Sheet: one or more plies, (HM or MA) a) Firestone MB Base Sheet M b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Firestone SBS Glass Torch Base e) Type G2 Ply Sheet: (optional) one more plies, (HM or MA) a) Firestone SBS Smooth b) Firestone SBS Poly Base	1	A,FA,61

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

- c) Firestone SBS Poly Torch Base
- Membrane: one or more plies, hot mopped or torched
- a) Firestone SBS, SBS Torch, SBS Premium
- Surfacing:
- a) Firestone Aluminum Fibered Roof Coating @ 1-1/2 gal/sq
- b) Karnak 97AF @ 1 1/2 gal/sq

- 1) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.
- 2) UL Classification can be maintained at the slope indicated over a combustible deck by incorporating 1/2" gypsum board or 1/4" Georgia-Pacific "Dens-Deck" directly on the combustible deck.

### UL CLASS A, B, C

**SYSTEM:** ADHERED w/o SURFACINGS  
**MEMBRANE:** Firestone SBS, SBS Torch, SBS Premium  
**DECK:** COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)

Max Slope	Class	Deck	Insulation Assembly	Remarks	UL Item No.
NL	C	NC / C(2)	Deck: Insulation: (optional) any thickness a) Any UL Classified (EPS <u>must</u> be covered with 1/2" min. wood fiber, glass fiber, or perlite) Base Sheet: (HM or MA) a) Firestone MB Base Sheet M b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Firestone SBS Poly Base Sheet e) Firestone SBS Poly Torch Base f) Firestone SBS Glass Torch Base g) Firestone Type IV (4) M, Type VI (6) M h) Type G1, G2, G3 Ply Sheet: (optional) one or more plies (HM or MA) a) Firestone SBS Smooth b) Firestone SBS Poly Base c) Firestone SBS Poly Torch Base Membrane: hot mopped or torched a) Firestone SBS, SBS Torch, SBS Premium	1	C,FA,08

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

- 1) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.
- 2) UL Classification can be maintained at the slope indicated over a combustible deck by incorporating ½” gypsum board or ¼” Georgia-Pacific “Dens-Deck” directly on the combustible deck.

**UL CLASS A, B, C**

**SYSTEM: ADHERED**  
**MEMBRANE: Firestone SBS FR, SBS FR Torch**  
**DECK: COMBUSTIBLE (C) OR NON-COMBUSTILBE (NC)**

Max Slope	Class	Deck	Insulation Assembly	Remarks	UL Item No.
½	A	NC / C(2)	Deck: Insulation: (optional) <ol style="list-style-type: none"> <li>a) Any UL Classified, any thickness (EPS <u>must</u> be covered with min.1/2" wood fiber, glass fiber, perlite or gypsum)</li> </ol> Base Sheet: One or more plies, MA or HM <ol style="list-style-type: none"> <li>a) Firestone MB Base Sheet M</li> <li>b) Firestone SBS Base Sheet"</li> <li>c) Firestone SBS Premium Base Sheet</li> <li>d) Firestone Glass Torch Base, MA or heat fused</li> <li>e) Firestone Poly Torch base, MA or heat fused</li> <li>f) Firestone Poly Base</li> <li>g) Firestone Type IV (4) M, Type VI (6) M</li> <li>h) Type G1, G2, G3</li> </ol> Membrane: hot mopped or heat fused <ol style="list-style-type: none"> <li>a) Firestone SBS FR, SBS FR Torch</li> </ol> Surfacing: (optional) <ol style="list-style-type: none"> <li>a) Firestone Acrylic Base Coat for Asphalt (1-1/2 gal/sq) followed by Firestone PC-100 at 1 gal/sq</li> </ol>	1	A,FA,71 A,FA,138
½	A	C	Deck: Base Sheet: one or more, MA or hot mopped <ol style="list-style-type: none"> <li>a) Firestone MB Base M</li> <li>b) Firestone SBS Base</li> <li>c) Firestone SBS Premium Base</li> <li>d) Firestone SBS Glass Torch Base, MA or heat fused</li> </ol> Ply Sheet: one or more, hot mopped <ol style="list-style-type: none"> <li>a) Firestone Type IV (4)M or Type VI (6) M</li> </ol> Membrane: hot mopped or heat fused <ol style="list-style-type: none"> <li>a) Firestone SBS FR, SBS FR Torch</li> </ol> Surfacing: (optional) <ol style="list-style-type: none"> <li>a) Firestone Acrylic Base Coat for Asphalt (1-1/2 gal/sq) followed by Firestone PC-100 at 1 gal/sq</li> </ol>		A,FA, 135

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

1/2	A	NC	Deck: Insulation: (opt) b) ISO 95+ GL, any thickness, MA Base Sheet: self adhered b) MB Base SA Membrane: heat fused a) SBS FRTorch Surfacing: (Opt) Acrylic Base Coat for Asphalt @ 1-1/2 gal/sq followed by PC-100 @ 1gal/sq	A,FA,142
1) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes. 2) UL Classification can be maintained at the slope indicated over a combustible deck by incorporating ½" gypsum board or ¼" Georgia-Pacific "Dens-Deck" directly on the combustible deck.				

### UL CLASS A, B, C

**SYSTEM: ADHERED**  
**MEMBRANE: Firestone SBS FR, SBS FR Torch**  
**DECK: COMBUSTIBLE (C) OR NON-COMBUSTILBE (NC)**

Max Slope	Class	Deck	Insulation Assembly	Remarks	UL Item No.
1	A	NC / C(2)	Deck: Insulation: (optional) a) any UL Classified, any thickness (EPS must be covered with ½ in. wood fiber, glass fiber, perlite or gypsum) Base Sheet: One or more a) Firestone MB Base Sheet M b) Firestone SBS Base Sheet" c) Firestone Premium Base Sheet d) Firestone Glass Torch Base, MA or heat fused e) Firestone Poly Torch base, MA or heat fused f) Firestone Poly Base g) Firestone Type IV (4) M, Type VI (6) M h) Type G1, G2, G3 Membrane: hot mopped or heat fused a) Firestone SBS FR, SBS FR Torch Surfacing: (optional) a) Firestone Acrylic Base Coat for Asphalt (1-1/2 gal/sq) followed by Firestone PC-100 at 1 gal/sq	1	A,FA,134
1 ½	B	NC / C(2)	Deck: Insulation: any thickness a) ISO 95+ GL or ISO 300 b) FiberTop Wood fiberboard c) Glass fiber d) Perlite Base Sheet: one or more a) Firestone MB Base Sheet M b) Firestone SBS Base Sheet" c) Firestone Premium Base Sheet d) Firestone Glass Torch Base, MA or heat fused e) Firestone Poly Torch base, MA or heat fused f) Firestone Poly Base Membrane: hot mopped or heat fused	1	B,FA 23

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

- a) Firestone SBS FR, SBS FR Torch
- Surfacing: (optional)
- a) Firestone Acrylic Base Coat for Asphalt (1-1/2 gal/sq) followed by Firestone PC-100 at 1 gal/sq

- 1) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.
- 2) UL Classification can be maintained at the slope indicated over a combustible deck by incorporating ½” gypsum board or ¼” Georgia-Pacific “Dens-Deck” directly on the combustible deck.

**UL CLASS A, B, C**

**SYSTEM: ADHERED**  
**MEMBRANE: Firestone SBS FR, SBS FR Torch**  
**DECK: COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)**

Max Slope	Class	Deck	Insulation Assembly	Remarks	UL Item No.
½	B	C	Deck: Base Sheet: one or more <ul style="list-style-type: none"> <li>a) Firestone MB Base Sheet M</li> <li>b) Firestone SBS Base Sheet"</li> <li>c) Firestone Glass Torch Base, MA or heat fused</li> <li>d) Firestone Premium Base Sheet</li> </ul> Membrane: hot mopped or heat fused <ul style="list-style-type: none"> <li>a) Firestone SBS FR, SBS FR Torch</li> </ul> Surfacing: (optional) <ul style="list-style-type: none"> <li>a) Firestone Acrylic Base Coat for Asphalt (1-1/2 gal/sq) followed by Firestone PC-100 at 1 gal/sq</li> </ul>		B,FA,40

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

- 1) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.
- 2) UL Classification can be maintained at the slope indicated over a combustible deck by incorporating ½" gypsum board or ¼" Georgia-Pacific "Dens-Deck" directly on the combustible deck.

### UL CLASS A, B, C

**SYSTEM: ADHERED**  
**MEMBRANE: Firestone SBS PREMIUM FR, SBS PREMIUM FR Torch**  
**DECK: COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)**

Max Slope	Class	Deck	Insulation Assembly	Remarks	UL Item No.
½	A	NC / C(2)	Deck: Insulation: (optional) <ol style="list-style-type: none"> <li>a) Any UL Classified, any thickness (EPS <u>must</u> be covered with min.1/2" wood fiber, glass fiber, perlite or gypsum)</li> </ol> Base Sheet: One or more plies, MA or HM <ol style="list-style-type: none"> <li>a) Firestone MB Base Sheet M</li> <li>b) Firestone SBS Base Sheet"</li> <li>c) Firestone Premium Base Sheet</li> <li>d) Firestone SBS Glass Torch Base</li> <li>e) Firestone Type IV (4) M, Type VI (6) M</li> <li>f) Type G1, G2, G3</li> </ol> Membrane: HM or heat fused <ol style="list-style-type: none"> <li>a) Firestone SBS Premium FR, SBS Premium FR Torch</li> </ol> Surfacing: (optional) <ol style="list-style-type: none"> <li>a) Firestone Acrylic Base Coat for Asphalt (1-1/2 gal/sq) followed by Firestone PC-100 at 1 gal/sq</li> </ol>	<b>1</b>	A,FA,62
½	A	C	Deck: Base Sheet: one or more plies, MA or HM <ol style="list-style-type: none"> <li>a) Firestone MB Base Sheet M</li> <li>b) Firestone SBS Base Sheet</li> <li>c) Firestone SBS Premium Base Sheet</li> <li>d) Firestone SBS Glass Torch Base</li> </ol> Ply sheet: one or more layers <ol style="list-style-type: none"> <li>a) Firestone Type IV (4) M, Type VI (6) M</li> <li>b) Type G1</li> </ol> Membrane: HM or heat fused <ol style="list-style-type: none"> <li>a) Firestone SBS Premium FR, SBS Premium FR Torch</li> </ol> Surfacing: (optional) <ol style="list-style-type: none"> <li>a) Firestone Acrylic Base Coat for Asphalt (1-1/2 gal/sq) followed by Firestone PC-100 at 1 gal/sq</li> </ol>		A,FA,135

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."



- 1) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.
- 2) UL Classification can be maintained at the slope indicated over a combustibile deck by incorporating ½" gypsum board or ¼" Georgia-Pacific "Dens-Deck" directly on the combustibile deck.

**UL CLASS A, B, C**

**SYSTEM: ADHERED**  
**MEMBRANE: Firestone SBS METAL FLASH-AL**  
**DECK: COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)**

Max Slope	Class	Deck	Insulation Assembly	Remarks	UL Item No.
1	A	NC / C(2)	Deck: Insulation: (optional) mechanically attached a) glass fiber - 1" max. b) perlite - 1" max. Membrane: heat fused a) Firestone SBS Metal Flash-AL	1	A,FA,91
NL	A	NC / C(2)	Deck: Insulation: (optional) any combination, any thickness a) ISO 95+ GL or ISO 300 b) FiberTop Wood Fiberboard c) Any UL Classified (polystyrene must be covered with min. 1" perlite, Wood fiber or 15/16" glass fiber) Base Sheet: one or more, MA, HM or heat fused a) Firestone MB Base Sheet M b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Firestone Poly Base Sheet e) Firestone SBS Poly Torch Base Sheet f) Firestone SBS Glass Torch Base Sheet g) Type G2 Membrane: heat fused a) Firestone SBS Metal Flash-AL	1	A,FA,92
NL	A	C	Deck: Insulation: a) min. 1.5" Firestone ISO 95+ GL Base Sheet: one or more plies, MA, HM or heat fused a) Firestone MB Base Sheet M b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Firestone SBS Glass Base Sheet Membrane: heat fused	1	A,FA,93

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

a) Firestone SBS Metal Flash-AL

NL	A	C	Deck: Insulation: a) min. 1" glass fiber b) min 1" perlite Base Sheet: one or more plies, MA, HM or heat fused a) Firestone MB Base Sheet M b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Firestone SBS Glass Base Sheet Membrane: heat fused a) Firestone SBS Metal Flash-AL	1	A,FA,94
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1) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.

2) UL Classification can be maintained at the slope indicated over a combustibile deck by incorporating ½" gypsum board or ¼" Georgia-Pacific "Dens-Deck" directly on the combustibile deck.

**UL CLASS A, B, C**

**SYSTEM: ADHERED**  
**MEMBRANE: Firestone SBS METAL FLASH-AL**  
**DECK: COMBUSTIBLE (C) OR NON-COMBUSTILBE (NC)**

<b>Max Slope</b>	<b>Class</b>	<b>Deck</b>	<b>Insulation Assembly</b>	<b>Remarks</b>	<b>UL Item No.</b>
NL	A	C	Deck: Insulation: (optional) any thickness (loose or MA) a) Firestone ISO 95+ GL b) Any UL Classified ISO Barrier Board: MA a) min. 1/4" Dens-Deck b) min. 1/4" Dens-Deck Prime Base Sheet: MA, HM or heat fused a) Firestone MB Base Sheet M b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Firestone SBS Glass Torch Base sheet e) Firestone SBS Poly Torch Base f) Firestone Type IV (4) M, Type VI (6) M g) any UL Classified Type G1, G2 Membrane: heat fused a) Firestone SBS Metal Flash-AL	1	A,FA,149
NL	B	C	Deck: Base Sheet: one or more, MA, HM a) Firestone MB Base Sheet M b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Firestone SBS Glass Torch Base sheet e) Type G2 Base/Ply Sheet: one or more, HM a) Firestone MB Base Sheet b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Type G2 Membrane: heat fused a) Firestone SBS Metal Flash-AL	1	B,FA,19

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

NL	B	C	Deck: Insulation: a) min. 3/4" perlite b) min. 3/4" glass fiber Base Sheet: one or more, HM a) Firestone MB Base Sheet M b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Type G2 Membrane: heat fused a) Firestone SBS Metal Flash-AL	1	B,FA,20
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- 1) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.
- 2) UL Classification can be maintained at the slope indicated over a combustible deck by incorporating 1/2" gypsum board or 1/4" Georgia-Pacific "Dens-Deck" directly on the combustible deck.

### UL CLASS A, B, C

<b>SYSTEM:</b>	<b>MAINTENANCE AND REPAIR</b>
<b>MEMBRANE:</b>	<b>Firestone SBS METAL FLASH-AL</b>
<b>DECK:</b>	<b>COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)</b>

Max Slope	Class	Deck	Insulation Assembly	Remarks	UL Item No.
NL	A	NC	Existing Roofing System: Class A, B or C covered with: Base Sheet: (optional) a) Firestone MB Base Sheet M b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Firestone SBS Glass Torch Base Sheet e) Firestone SBS Poly Torch Base Sheet f) Firestone Type IV (4) M , Type VI (6) M g) Type G1, G2 Membrane: heat fused a) Firestone SBS Metal Flash-AL	1	A,MR,12

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

- 1) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.
- 2) UL Classification can be maintained at the slope indicated over a combustible deck by incorporating ½” gypsum board or ¼” Georgia-Pacific “Dens-Deck” directly on the combustible deck.

**UL CLASS A, B, C**

**SYSTEM: COLD ADHESIVE**  
**MEMBRANE: FIRESTONE APP 180 FR COOL**  
**DECK: COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)**

<b>Max Slope</b>	<b>Class</b>	<b>Deck</b>	<b>Insulation Assembly</b>	<b>Remarks</b>	<b>UL Item No.</b>
1	A	NC / C(2)	Deck: Insulation: (optional ) any combination, any thickness a) Firestone ISO 95+ GL b) Firestone FiberTop Wood Fiberboard c) any UL Classified (except polystyrene) Base Sheet: one or more set in Firestone Multi-Purpose Cold adhesive at 1-1/2 gal /sq a) Firestone MB Base Sheet M b) APP 80 Glass Base Cool c) Firestone Type IV (4) M, Type VI (6) M Ply Sheet: (optional) MA or set in Firestone Multi-Purpose Cold adhesive at 1-1/2 gal /sq a) Firestone APP 80 Glass Base Cool b) Firestone APP 160 Cool c) Firestone APP 170 Cool Membrane: set in Firestone Multi-Purpose Cold adhesive at 1-1/2 gal /sq a) Firestone APP 180 FR Cool Surfacing: (optional) a) Firestone Acrylic Base Coat for Asphalt (1-1/2 gal/sq) followed by Firestone PC-100 at 1 gal/sq	1	A,FA,150
1/2	A	C	Deck: Base Sheet: one or more plies (MA) a) Firestone MB Base Sheet M b) APP 80 Glass Base Cool c) Firestone Type IV (4) M, Type VI (6) M Ply Sheet: one ply set in Firestone Multi-Purpose Cold adhesive at 1-1/2 to 2 gal /sq a) Firestone APP 80 Glass Base Cool b) Firestone MB Base c) Firestone Type IV (4) M,VI (6) M Membrane: set in Firestone Multi-Purpose Cold adhesive at 1-1/2 to 2	1	A,CA,06

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

- gal /sq
  - a) Firestone APP 180 FR Cool
- Surfacing: (optional)
- a) Firestone Acrylic Base Coat for Asphalt (1-1/2 gal/sq) followed by Firestone PC-100 at 1 gal/sq

- 1) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.
- 2) UL Classification can be maintained at the slope indicated over a combustible deck by incorporating ½” gypsum board or ¼” Georgia-Pacific “Dens-Deck” directly on the combustible deck.

**UL CLASS A, B, C**

**SYSTEM: COLD ADHESIVE**  
**MEMBRANE: FIRESTONE APP 180 FR COOL**  
**DECK: COMBUSTIBLE (C) OR NON-COMBUSTILBE (NC)**

Max Slope	Class	Deck	Insulation Assembly	Remarks	UL Item No.
1/2	B	C	Deck: Base Sheet: one ply (MA) a) Firestone MB Base Sheet M b) APP 80 Glass Base Cool Membrane: set in Firestone Multi-Purpose Cold adhesive at 1-1/2 to 2 gal /sq a) Firestone APP 180 FR Cool Surfacing: (optional) a) Firestone Acrylic Base Coat for Asphalt (1-1/2 gal/sq) followed by Firestone PC-100 at 1 gal/sq	1	B,CA,03

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

- 1) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.
- 2) UL Classification can be maintained at the slope indicated over a combustible deck by incorporating ½” gypsum board or ¼” Georgia-Pacific “Dens-Deck” directly on the combustible deck.

### UL CLASS A, B, C

**SYSTEM: COLD ADHESIVE**  
**MEMBRANE: FIRESTONE SBS PREMIUM FR**  
**DECK: COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)**

Max Slope	Class	Deck	Insulation Assembly	Remarks	UL Item No.
1/2	A	NC / C(2)	Deck: Insulation: (optional) HM, MA, any thickness, any combination a) Firestone ISO 95+ GL b) Firestone FiberTop Wood Fiberboard c) Any UL Classified (except polystyrene) Base Sheet: set in Firestone Multi-Purpose Cold adhesive at 1-1/2 to 2 gal /sq a) Firestone MB Base Sheet M b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Firestone Type IV (4) M, Type VI (6) M e) Type G1, G2 Membrane: set in Firestone Multi-Purpose Cold adhesive at 1-1/2 to 2 gal /sq a) Firestone SBS Premium FR Surfacing: (optional) a) Firestone Acrylic Base Coat for Asphalt (1-1/2 gal/sq) followed by Firestone PC-100 at 1 gal/sq	1	A,CA,01
1/2	B	C	Deck: Base Sheet: one layer, set in Firestone Multi-Purpose Cold adhesive at 1-1/2 to 2 gal /sq a) Firestone MB Base Sheet M b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet Ply sheet: one layer, set in Firestone Multi-Purpose Cold adhesive at 1-1/2 to 2 gal /sq a) Firestone MB Base Sheet M b) Firestone SBS Base Sheet Membrane: set in Firestone Multi-Purpose Cold adhesive at 1-1/2 to 2		B,CA,02

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- gal /sq  
 a) Firestone SBS Premium FR
- Surfacing: (optional)  
 a) Firestone Acrylic Base Coat for Asphalt (1-1/2 gal/sq) followed by Firestone PC-100 at 1 gal/sq

- 1) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.
- 2) UL Classification can be maintained at the slope indicated over a combustible deck by incorporating ½” gypsum board or ¼” Georgia-Pacific “Dens-Deck” directly on the combustible deck.

### UL CLASS A, B, C

**SYSTEM:** COLD ADHESIVE  
**MEMBRANE:** FIRESTONE SBS FR  
**DECK:** COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)

Max Slope	Class	Deck	Insulation Assembly	Remarks	UL Item No.
1/2	A	C	Deck: Insulation: (optional) loose laid, MA, any thickness a) Firestone ISO 95+ GL b) Firestone FiberTop Wood Fiberboard c) Any UL Classified (except polystyrene) Barrier Board: MA a) min. ¼” Dens-Deck b) min. ¼” Dens-Deck Prime Base Sheet: (optional) HM, MA a) Firestone MB Base Sheet M b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Firestone Type IV (4) M, Type VI (6) M e) Type G1, G2 Base Sheet: set in Firestone Multi-Purpose Cold adhesive at 1-1/2 to 2 gal /sq a) Firestone SBS Base Sheet M b) Firestone SBS Premium Base Sheet c) Firestone MB Base Sheet Membrane: set in Firestone Multi-Purpose Cold adhesive at 1-1/2 to 2 gal /sq a) Firestone SBS FR Surfacing: (optional) a) Firestone Acrylic Base Coat for Asphalt (1-1/2 gal/sq) followed by Firestone PC-100 at 1 gal/sq	1	A,CA,05
1/2	B	C	Deck: Base Sheet: one layer, mechanically attached a) Firestone MB Base Sheet M b) Firestone SBS Base Sheet		B,CA,02

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

- c) Firestone SBS Premium Base Sheet
- Ply sheet: one layer, set in Firestone Multi-Purpose Cold adhesive at 1-1/2 to 2 gal /sq
  - a) Firestone MB Base Sheet M
  - b) Firestone SBS Base Sheet
- Membrane: set in Firestone Multi-Purpose Cold adhesive at 1-1/2 to 2 gal /sq
  - a) Firestone SBS FR
- Surfacing: (optional)
  - a) Firestone Acrylic Base Coat for Asphalt (1-1/2 gal/sq) followed by Firestone PC-100 at 1 gal/sq

- 1) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.
- 2) UL Classification can be maintained at the slope indicated over a combustible deck by incorporating 1/2" gypsum board or 1/4" Georgia-Pacific "Dens-Deck" directly on the combustible deck.

**UL CLASS A, B, C**

**SYSTEM: COLD ADHESIVE**  
**MEMBRANE: FIRESTONE APP Premium FR**  
**DECK: COMBUSTIBLE (C) OR NON-COMBUSTILBE (NC)**

Max Slope	Class	Deck	Insulation Assembly	Remarks	UL Item No.
1/2	A	NC	Deck: Insulation: (optional) HM, MA, any thickness a) Firestone ISO 95+ GL Base Sheet: set in Firestone Multi-Purpose Cold adhesive at 1-1/2 to 2 gal /sq a) Firestone MB Base Sheet M b) Firestone APP Premium Base Membrane: set in Firestone Multi-Purpose Cold adhesive at 1-1/2 to 2 gal /sq a) Firestone APP Premium FR Surfacing: (optional) a) Firestone Acrylic Base Coat for Asphalt (1-1/2 gal/sq) followed by Firestone PC-100 at 1 gal/sq	1	A,CA,03
1/2	A	C	Deck: Base Sheet: two or more plies MA or set in Firestone Multi-Purpose Cold adhesive at 1-1/2 to 2 gal /sq c) Firestone MB Base Sheet M d) Firestone APP Premium Base Membrane: set in Firestone Multi-Purpose Cold adhesive at 1-1/2 to 2 gal /sq b) Firestone APP Premium FR Surfacing: (optional) a) Firestone Acrylic Base Coat for Asphalt (1-1/2 gal/sq) followed by Firestone PC-100 at 1 gal/sq	1	A,CA,04

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

- 1) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.
- 2) UL Classification can be maintained at the slope indicated over a combustible deck by incorporating ½” gypsum board or ¼” Georgia-Pacific “Dens-Deck” directly on the combustible deck.

### UL CLASS A, B, C

**SYSTEM: BUILT UP ROOFING**  
**DECK: COMBUSTIBLE (C) OR NON-COMBUSTIBLE (NC)**

Max Slope	Class	Deck	Insulation Assembly	Remarks	UL Item No.
4	A	C	Deck: Insulation: MA, any thickness a) Firestone ISO 95+ GL b) Any UL Classified ISO Coverboard: MA, HM a) min. ½” Firestone FiberTop Wood Fiberboard b) min. ½” any UL Classified wood fiberboard Ply Sheet: any combination (total 4 plies), HM a) Firestone MB Base Sheet M b) Firestone Type IV (4) M, Type VI (6) M c) Type G1, G2 Surfacing: a) 400# gravel set in asphalt	1	A,BU,08
4	A	NC / C(2)	Deck: Insulation: (optional) MA, any thickness a) Firestone ISO 95+ GL b) Any UL Classified ISO Coverboard: (optional) MA, HM a) min. ½” Firestone FiberTop Wood Fiberboard b) min. ½” any UL Classified wood fiberboard Ply Sheet: any combination (max. 4 plies), HM a) Firestone MB Base Sheet M b) Firestone Type IV (4) M, Type VI (6) M c) Type G1, G2 Surfacing: a) 400 lbs./ sq. gravel set in asphalt	1	A,BU,09
3	A	C	Deck: Insulation: MA, HM	1	A,BU,07

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

- a) min. 2” Firestone ISO 95+ GL
  - b) min. 1.5” Firestone ISO 95+ GL or w/min. 1/2” Firestone FiberTop or min. 1/2” perlite
  - c) min. 1” Firestone FiberTop
  - d) min. 1” any UL Classified Wood Fiberboard
  - e) min. 1” any UL Classified perlite
- Base Sheet: one or more, MA, HM
- a) Firestone MB Base Sheet M
- Ply Sheet: two or more, MA, HM
- a) Firestone Type IV (4) M, Type VI (6) M
- Surfacing:
- a) 400 lbs./ sq. gravel set in asphalt

- 1) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.
- 2) UL Classification can be maintained at the slope indicated over a combustibile deck by incorporating 1/2” gypsum board or 1/4” Georgia-Pacific “Dens-Deck” directly on the combustibile deck.

**UL CLASS A, B, C**

**SYSTEM: BUILT UP ROOFING**  
**DECK: COMBUSTIBLE (C) OR NON-COMBUSTILBE (NC)**

<b>Max Slope</b>	<b>Class</b>	<b>Deck</b>	<b>Insulation Assembly</b>	<b>Remarks</b>	<b>UL Item No.</b>
3	A	NC / C(2)	Deck: Insulation: (optional) any combination, MA, HM <ul style="list-style-type: none"> <li>a) Firestone ISO 95+ GL</li> <li>b) Firestone FiberTop</li> </ul> Base Sheet: (optional) one or more plies, MA, HM <ul style="list-style-type: none"> <li>a) Firestone MB Base Sheet M</li> </ul> Ply Sheet: one or more plies, MA, HM <ul style="list-style-type: none"> <li>a) Firestone Type IV (4) M, Type VI (6) M</li> </ul> Surfacing: <ul style="list-style-type: none"> <li>a) 400# gravel set in asphalt</li> </ul>		A,BU,06

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

- 1) I.S.O.Fix, I.S.O.Spray, I.S.O. Twin Pack or hot asphalt may be used to attach insulation to deck and/or insulation to insulation or coverboards and maintain the rating shown. Consult Firestone Contractor Service for acceptable combinations for warranty purposes.
- 2) UL Classification can be maintained at the slope indicated over a combustible deck by incorporating ½” gypsum board or ¼” Georgia-Pacific “Dens-Deck” directly on the combustible deck.

## II. INTERNAL FIRE RATINGS

In order to determine the resistance of a building to internal sources of fire, Underwriters Laboratories has conducted extensive testing and classification of wall, floor/ceiling and roof/ceiling assemblies. UL classified assemblies are rated according to the time in hours the assembly will contain a fire and still maintain structural integrity. Testing is conducted in accordance with UL Standard 263 ( ASTM E-119 ), which is recognized by all major building codes.

Roof/Ceiling Assemblies are listed in the UL Fire Resistance Directory-Vol. 1 under the prefix “P” and are classified by hourly fire rating according to the type of protection used to contain a fire:

ASSEMBLY	PROTECTION USED
P000 - P099	Concealed grid suspended ceiling
P200 - P299	Exposed grid suspended ceiling
P400 - P499	Metal lathe (plaster) ceiling
P500 - P599	Gypsum board ceiling
P600 - P699	Miscellaneous fireproofing
P700 - P799	Sprayed cementitious fire proofing
P800 - P899	Sprayed fiber fireproofing
P900 - P999	Unprotected concrete or composite decks

It should be noted that the roof membrane forms only a small part of the total roof/ceiling assembly. In order for a structure to qualify for a particular “P” Assembly or Roof Deck Construction, all materials used to construct the assembly (including roof decking, ceiling materials, light fixtures, duct work and structural support members) must be UL classified and installed as described in the appropriate UL Directories.

The insulations listed with each of the following “P” Assemblies are not, in most cases, the only UL accepted insulations for that assembly. Consult the UL Fire Resistance Directory - Vol. 1 for “P” Assembly information and the UL Roofing Materials and Systems Directory for Roof Deck Construction information, or call Firestone Technical Services for additional accepted insulations.

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

UL has indicated on page 8 of the 2006 Fire Resistance Directory - Vol. 1 that "Class A, B or C roof coverings consisting of hot mopped or cold applied bituminous materials or a roof covering material Classified under 'Roofing Membranes' (CHCI) may be applied directly to the concrete or wood surface of floor designs being used as roofs without a reduction of fire resistance ratings." They further state on page 8 that "Roof insulation is to be carefully controlled relative to manufacturer, type and thickness as specified. Less than the specified thickness could result in higher temperatures on the roof covering while a greater thickness of insulation could cause earlier structural failure. Classified polystyrene insulation, with a density of 5 pcf or less, may be placed on concrete floors or structural concrete roofs without reducing the assembly rating."

Roof Deck Constructions are listed in the UL Roofing Materials and Systems Directory and are rated according to the interior flame spread of the assembly as compared to the flame spread of a typical built-up roof installed over a metal deck (UL 1256). Roof Deck Constructions may also be classified according to wind uplift performance. The fire rating of a UL Roof Deck Constructions is basically identical to the Factory Mutual Class I internal fire (calorimeter) rating.

**UL ROOF DECK CONSTRUCTIONS  
AND "P" ASSEMBLIES**

**DECK CONSTRUCTIONS**

<b>Deck Construction #</b>	<b>Acceptable Assembly<sup>1</sup></b>	<b>Deck Construction #</b>	<b>Acceptable Assembly<sup>1</sup></b>	<b>Deck Construction #</b>	<b>Acceptable Assembly<sup>1</sup></b>
No. 1	B,A	No. 9	B,A	No. 158	B,A
No. 1 (alt.)	P	No. 9 (alt.)	P	No. 219	B,A
No. 2	B,A	No. 14	B,A	No. 237	B,A
No. 2 (alt.)	P	No. 14 (alt.)	P	No. 237 (alt.)	P
No. 3	B,A	No. 120	B,A		
No. 3 (alt.)	P	No. 123	B,A		

<sup>1</sup>Consult Roof Deck Constructions (TGKX) in the UL Roofing Materials and Systems Directory, Firestone Roofing Solutions or the Firestone Codes Department for Acceptable Insulations for use in these constructions.

**"P" ASSEMBLIES**

<b>Design #</b>	<b>Design #</b>	<b>Design #</b>	<b>Design #</b>	<b>Design #</b>	
P211	P405	P718	P815	P921	
P213	P406	P719	P816	P922	
P214	P407	P720	P818	P923	
P215	P410	P722	P819	P925	
P216	P411	P723	P822	P926	
P225	P501	P725	P824	P927	
P227	P503	P726	P825	P928	
P228	P504	P727	P826	P929	
P229	P505	P728	P827	P930	
P230	P506	P729	P902	P931	
P231	P507	P730	P903		
P235	P508	P731	P904		
P237	P509	P732	P905		
P238	P510	P733	P906		
P239	P511	P734	P907		
P241	P512	P735	P908		
P242	P513	P736	P909		
P244	P514	P737	P910		
P245	P519	P738	P911		
P246	P701	P739	P912		
P250	P708	P801	P913		
P251	P709	P803	P914		
P253	P710	P805	P915		
P254	P711	P810	P916		
P255	P712	P811	P917		
P257	P714	P812	P919		
P259	P717	P814	P920		

<sup>2</sup>Consult Fire Resistance Ratings (BXUV) in the UL Fire Resistance Directory, Firestone Roofing Solutions, or the Firestone Codes Department for Acceptable Insulations, thickness and additional requirements.

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

## FACTORY MUTUAL UPLIFT RATINGS

Although Factory Mutual Class 1-60, 1-90 and higher approvals cover a wide range of testing of roofing products (including tests for fire resistance, corrosion resistance, fuel contribution and hail damage) Factory Mutual Class 1-60, 1-90 and higher approvals are known best for the uplift resistance afforded by a FM approved roofing assembly.

FM 1-60 assemblies have been tested to withstand a 60 psf air pressure applied for a period of one minute.

FM 1-90 assemblies have been tested to withstand a 90 psf air pressure applied for a period of one minute.

### NOTE:

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

<b>SYSTEM:</b>	<b>ADHERED</b>
<b>MEMBRANE:</b>	<b>FIRESTONE APP 160, APP 170, APP 180, OR APP 180 FR</b>
<b>DECK:</b>	<b>Steel or Concrete</b>
<b>CONSTRUCTION:</b>	<b>New or Tear-off</b>

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-60 / 1-90	Steel (min. "C") / Concrete	Barrier Board: rating per attachment in FM BUR tables for gypsum or Dens-Deck (optional when installed on concrete deck) <ul style="list-style-type: none"> <li>a) min. 5/8" Type X gypsum</li> <li>a. min. 5/8" Georgia-Pacific Dens-Deck</li> </ul> Vapor Barrier: two plies, mopped <ul style="list-style-type: none"> <li>a) Firestone Type IV (4) M, Type VI (6) M</li> </ul> Insulation: mopped <ul style="list-style-type: none"> <li>a) min. 1.5" Firestone ISO 95+ GL, max. 12" total</li> </ul> Coverboard: <ul style="list-style-type: none"> <li>a) 1" FiberTop Wood Fiberboard</li> <li>b) 1/4" Dens-Deck or Dens-Deck Prime</li> <li>c) 3/4" perlite</li> <li>d) 3/4" fiberglass</li> </ul> Any FM Approved Firestone APP Assembly shown in this Approval Guide	APP Construction #10

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** ADHERED\*  
**MEMBRANE:** FIRESTONE APP 160, APP 170, APP 180, OR APP 180 FR  
**DECK:** Steel or Concrete  
**CONSTRUCTION:** New or Tear-off

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-90	Steel (min. "C") / Concrete	Insulation: a) ISO 95+ GL, ISO 95 + Composite, min 1.5 b) ACFoam II, ACFoam Composite, min. 1.5 c) Pyrox, min 1.5" d) ENRGY 2, min. 1.5" e) MultiMax FA, min. 1.5" Attachment: 5 FM Approved fastener / plates per 4' x 4' insulation board (1 per 2.4 sq. ft.) a) Firestone AP, HD or pre-assembled b) Roofgrip #14, #15 c) Deckfast #14, #15 d) Olympic #14, #15 e) Tru-Fast #14, #15 Base Sheet: a) Firestone MB (M) Base Sheet b) Manville Glassbase Base Sheet Attachment: Spot mopped with asphalt applied in approximately 12" diameter spots 24" oc in rows staggered and 16" oc to the insulation Membrane: heat fused a) APP 160 b) APP 170 c) APP 180 d) APP 180 FR Fire rating: a) 1C @ ½:12 with no coating b) 1B @ 1:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq c) 1A @ ¾:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq d) 1A @ 2:12 with 400 lbs/sq. of roofing gravel set in hot asphalt e) 1A @ 1-1/2:12 APP 180 FR (no coating required)	APP Construction #1

\* Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. ¼" Georgia-Pacific "Dens-Deck" is placed directly on the Wood Deck under the insulation.

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** ADHERED\*  
**MEMBRANE:** FIRESTONE APP 160, APP 170, APP 180, OR APP 180 FR  
**DECK:** Steel or Concrete  
**CONSTRUCTION:** New or Tear-off

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-60	Steel (min. "C") / concrete	Insulation: a) ISO 95+ GL, ISO 95 + Composite, min 1.5 b) ACFoam II, ACFoam Composite, min. 1.5 c) Pyrox, min 1.5" d) ENRGY 2, min. 1.5" e) MultiMax FA, min. 1.5" Attachment: preliminary attachment a) Firestone AP, HD or pre-assembled b) Roofgrip #14, #15 c) Deckfast #14, #15 d) Olympic #14, #15 e) Tru-Fast #14, #15 Base Sheet: a) Firestone MB Base Sheet M b) Manville Glassbase Base Sheet Attachment: 24" oc in the side laps and one row 24" oc in the middle of the base sheet and staggered. Metal plates only a) Firestone AP, HD or pre-assembled b) Roofgrip #14, #15 c) Deckfast #14, #15 d) Olympic #14, #15 e) Tru-Fast #14, #15 Membrane: heat fused a) APP 160 b) APP 170 c) APP 180 d) APP 180 FR Fire rating: a) 1C @ ½:12 with no coating b) 1B @ 1:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq c) 1A @ ¾:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq d) 1A @ 2:12 with 400 lbs/sq. of roofing gravel set in hot asphalt e) 1A @ 1-1/2:12 APP 180 FR (no coating required)	APP Construction #4

\* Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. ¼" Georgia-Pacific "Dens-Deck" is placed directly on the Wood Deck under the insulation.

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** ADHERED\*  
**MEMBRANE:** FIRESTONE APP 160, APP 170, APP 180, OR APP 180 FR  
**DECK:** Steel or Concrete  
**CONSTRUCTION:** New or Tear-off

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-90	Steel (min. "C") / concrete	Insulation: a) ISO 95+ GL, ISO 95 + Composite, min 1.5 b) ACFoam II, ACFoam Composite, min. 1.5 c) Pyrox, min 1.5" d) ENRGY 2, min. 1.5" e) MultiMax FA, min. 1.5" Attachment: preliminary attachment a) Firestone AP, HD or pre-assembled b) Roofgrip #14, #15 c) Deckfast #14, #15 d) Olympic #14, #15 e) Tru-Fast #14, #15 Base Sheet: a) Firestone MB Base Sheet M b) Manville Glassbase Base Sheet Attachment: 18" oc in the side laps and one row 18" oc in the middle of the base sheet and staggered. Metal plates only a) Firestone AP, HD or pre-assembled b) Roofgrip #14, #15 c) Deckfast #14, #15 d) Olympic #14, #15 e) Tru-Fast #14, #15 Membrane: heat fused a) APP 160 b) APP 170 c) APP 180 d) APP 180 FR Fire rating: a) 1C @ ½:12 with no coating b) 1B @ 1:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq c) 1A @ ¾:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq d) 1A @ 2:12 with 400 lbs/sq. of roofing gravel set in hot asphalt e) 1A @ 1-1/2:12 APP 180 FR (no coating required)	APP Construction #4

\* Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. ¼" Georgia-Pacific "Dens-Deck" is placed directly on the Wood Deck under the insulation.

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

**SYSTEM:** ADHERED  
**MEMBRANE:** FIRESTONE APP 160, APP 170, APP 180, OR APP 180 FR  
**DECK:** Concrete  
**CONSTRUCTION:** New or Tear-off

Rating	Deck	Roofing Assembly	Construction No.
1-420	Concrete	Deck: primed or unprimed Insulation: a) min. 1.5" IOS 95+ GL, mopped Insulation (optional) a) 1/4:12 tapered ISO 95+ GL (w/1/2" start), mopped Ply Sheet: one or more, mopped a) Firestone MB Base Sheet M b) Firestone Type IV (4) M, Type VI (6) M Membrane: heat fused a) APP 160 b) APP 170 c) APP 180 d) APP 180 FR Fire rating: a) 1C @ ½:12 with no coating b) 1B @ 1:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq c) 1A @ ¾:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq d) 1A @ 2:12 with 400 lbs/sq. of roofing gravel set in hot asphalt e) 1A @ 1-1/2:12 APP 180 FR (no coating required)	APP Construction #12
1-240	Concrete	Deck: primed or unprimed Ply Sheet: one or more, mopped a) Firestone MB Base Sheet M b) Firestone Type IV (4) M, Type VI (6) M Membrane: heat fused a) APP 160 b) APP 170 c) APP 180 d) APP 180 FR Fire rating: a) 1C @ ½:12 with no coating b) 1B @ 1:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq c) 1A @ ¾:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq d) 1A @ 2:12 with 400 lbs/sq. of roofing gravel set in hot asphalt e) 1A @ 1-1/2:12 APP 180 FR (no coating required)	APP Construction #7

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

**SYSTEM:** ADHERED  
**MEMBRANE:** FIRESTONE APP 160, APP 170, APP 180, OR APP 180 FR  
**DECK:** Concrete  
**CONSTRUCTION:** New or Tear-off

Rating	Deck	Roofing Assembly	Construction No.
1-195	Concrete	Deck: primed or unprimed Insulation: a) min. 1.5" ISO 95+ GL, mopped Insulation (optional) a) 1/4:12 tapered ISO 95+ GL (w/1/2" start), mopped Coverboard: mopped a) min. 1/2" Firestone FiberTop Wood Fiberboard Ply Sheet: one or more, mopped a) Firestone MB Base Sheet M b) Firestone Type IV (4) M, Type VI (6) M Membrane: heat fused a) APP 160 b) APP 170 c) APP 180 d) APP 180 FR Fire rating: a) 1C @ 1/2:12 with no coating b) 1B @ 1:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq c) 1A @ 3/4:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq d) 1A @ 2:12 with 400 lbs/sq. of roofing gravel set in hot asphalt e) 1A @ 1-1/2:12 APP 180 FR (no coating required)	APP Construction #11

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

**NOTE:**

Base Sheet attachment to be increased by 70% in the perimeters and 160% in the corners. Perimeters /corners are defined as 10% of the lesser plan dimension or 40% of the eave (roof) height, whichever is least, but no less than 3 feet.

<b>SYSTEM:</b>	<b>ADHERED</b>
<b>MEMBRANE:</b>	<b>FIRESTONE APP 160, APP 170, APP 180, OR APP 180 FR</b>
<b>DECK:</b>	<b>Lightweight Insulating Concrete</b>
<b>CONSTRUCTION:</b>	<b>New</b>

See pages 129 fastener density requirements

<b>Rating</b>	<b>Deck</b>	<b>Roofing Assembly</b>	<b>Construction No.</b>
1-90	Celcore (min. 36#),	Base Sheet: a) Firestone MB Base Sheet M b) Firestone APP 80 Glass Base Base Sheet Attachment: a) Firestone LWC Base Ply Fastener and Plate, 7" oc in the side lap and 7" oc in two rows equally spaced and staggered in the field of the base sheet Ply Sheet: one or two, mopped a) Firestone Type IV (4) M b) Firestone Type VI (6) M Membrane: heat fused a) APP 160 b) APP 170 c) APP 180 d) APP 180 FR Fire rating: a) 1C @ ½:12 with no coating b) 1B @ 1:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq c) 1A @ ¾:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq d) 1A @ 2:12 with 400 lbs/sq. of roofing gravel set in hot asphalt e) 1A @ 1-1/2:12 APP 180 FR (no coating required)	LtWt Construction #3

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

**NOTE:**

Base Sheet attachment to be increased by 70% in the perimeters and 160% in the corners. Perimeters /corners are defined as 10% of the lesser plan dimension or 40% of the eave (roof) height, whichever is least, but no less than 3 feet.

<b>SYSTEM:</b>	<b>ADHERED</b>
<b>MEMBRANE:</b>	<b>FIRESTONE APP 160, APP 170, APP 180, OR APP 180 FR</b>
<b>DECK:</b>	<b>Lightweight Insulating Concrete</b>
<b>CONSTRUCTION:</b>	<b>New</b>

See pages 129 fastener density requirements

<b>Rating</b>	<b>Deck</b>	<b>Roofing Assembly</b>	<b>Construction No.</b>
1-90	Celcore (min. 36#),	Base Sheet: a) Firestone MB Base Sheet M b) Firestone APP 80 Glass Base Base Sheet Attachment: a) Firestone LWC Base Ply Fastener and Plate, 7" oc in the side lap and 7" oc in two rows equally spaced and staggered in the field of the base sheet Ply Sheet: one layer, heat fused a) Firestone APP 160 b) Firestone APP 170 Membrane: heat fused a) APP 160 b) APP 170 c) APP 180 d) APP 180 FR Fire rating: a) 1C @ ½:12 with no coating b) 1B @ 1:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq c) 1A @ ¾:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq d) 1A @ 2:12 with 400 lbs/sq. of roofing gravel set in hot asphalt e) 1A @ 1-1/2:12 APP 180 FR (no coating required)	LtWt Construction #3

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

**NOTE:**

Base Sheet attachment to be increased by 70% in the perimeters and 160% in the corners. Perimeters /corners are defined as 10% of the lesser plan dimension or 40% of the eave (roof) height, whichever is least, but no less than 3 feet.

**SYSTEM:** ADHERED  
**MEMBRANE:** FIRESTONE APP 160, APP 170, APP 180, OR APP 180 FR  
**DECK:** Lightweight Insulating Concrete  
**CONSTRUCTION:** New

See pages 129 fastener density requirements

Rating	Deck	Roofing Assembly	Construction No.
1-90	Elastizell Range II (min. 45#),	Base Sheet: a) Firestone MB Base Sheet M b) Firestone APP 80 Glass Base Base Sheet Attachment: a) Firestone LWC Base Ply Fastener and Plate, 7" oc in the side lap and 7" oc in two rows equally spaced and staggered in the field of the base sheet Ply Sheet: one layer, heat fused or mopped as appropriate a) Firestone MB Base Sheet M b) Firestone APP 80 Glass Base c) Firestone APP 160 d) Firestone APP 170 Membrane: heat fused a) APP 160 b) APP 170 c) APP 180 d) APP 180 FR Fire rating: a) 1C @ ½:12 with no coating b) 1B @ 1:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq c) 1A @ ¾:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq d) 1A @ 2:12 with 400 lbs/sq. of roofing gravel set in hot asphalt e) 1A @ 1-1/2:12 APP 180 FR (no coating required)	LtWt Construction #17

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

<b>SYSTEM:</b>	<b>ADHERED*</b>
<b>MEMBRANE:</b>	<b>FIRESTONE SBS, SBS PREMIUM, SBS SMOOTH, SBS FR, SBS PREMIUM FR</b>
<b>DECK:</b>	<b>Steel or Concrete</b>
<b>CONSTRUCTION:</b>	<b>New or Tear-off</b>

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-90	Steel (min "C") / concrete	Insulation: <ul style="list-style-type: none"> <li>a) Firestone ISO 95+ GL, min. 1.5"</li> <li>b) AC Foam II, min. 1.5"</li> <li>c) Multi-Max FA, min 1.5"</li> <li>d) Hy-Therm AP, min. 1.5"</li> </ul> Attachment: 1 fastener / plate (metal) per 2 sq. ft <ul style="list-style-type: none"> <li>a) Firestone AP, HD or Pre-assembled</li> <li>b) Tru-Fast DP-H</li> <li>c) Dekfast #14</li> </ul> Coverboard: mopped <ul style="list-style-type: none"> <li>a) Any FM Approved min. 3/4" perlite</li> </ul> Base Sheet: mopped <ul style="list-style-type: none"> <li>a) Firestone MB Base Sheet</li> <li>b) Firestone SBS Base Sheet</li> <li>c) Firestone SBS Premium Base Sheet</li> <li>d) Firestone Type IV (4) M, Type VI (6) M</li> </ul> Membrane: mopped <ul style="list-style-type: none"> <li>a) Firestone SBS</li> <li>b) Firestone SBS FR</li> <li>c) Firestone Smooth</li> <li>d) Firestone SBS Premium</li> <li>e) Firestone SBS Premium FR</li> </ul> Fire rating: <ul style="list-style-type: none"> <li>a) 1C @ 5:12 no coating required</li> <li>b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq.</li> <li>c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt</li> <li>d) 1A @ 1:12 SBS FR, SBS Premium FR (no coating required)</li> </ul>	SBS Construction #1

\* Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. 1/4" Georgia-Pacific "Dens-Deck" is placed directly on the Wood Deck under the insulation.

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** ADHERED\*  
**MEMBRANE:** FIRESTONE SBS, SBS PREMIUM, SBS SMOOTH, SBS FR, SBS PREMIUM FR  
**DECK:** Steel or Concrete  
**CONSTRUCTION:** New or Tear-off

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-90	Steel (min "C") / concrete	Insulation: loose laid a) Firestone ISO 95+ GL, min. 2.2" Coverboard: a) min. 1/2" Firestone FiberTop C, E or S Attachment: mechanically attached at 1 fastener/plate (metal) per 2 sq. ft a) Firestone AP, HD or Pre-assembled b) Tru-Fast DP-H c) Dekfast #14 Base Sheet: mopped a) Firestone MB Base Sheet b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Firestone Type IV (4) M, Type VI (6) M Membrane: mopped a) Firestone SBS b) Firestone SBS FR c) Firestone Smooth d) Firestone SBS Premium e) Firestone SBS Premium FR Fire rating: a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1:12 SBS FR, SBS Premium FR (no coating required)	Pending SBS Construction # tested 2-04

\* Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. 1/4" Georgia-Pacific "Dens-Deck" is placed directly on the Wood Deck under the insulation.

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** ADHERED\*  
**MEMBRANE:** FIRESTONE SBS, SBS PREMIUM, SBS SMOOTH, SBS FR, SBS PREMIUM FR  
**DECK:** Steel or Concrete  
**CONSTRUCTION:** New or Tear-off

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-90	Steel (min "C") / concrete	Insulation: loose laid a) Firestone ISO 95+ GL, min. 1.5" b) AC Foam II, min. 1.5" c) Multi-Max FA, min 1.5" d) Hy-Therm AP, min. 1.5" Coverboard: a) 1" Firestone FiberTop C, E or S Attachment: mechanically attached at 1 fastener/plate (metal) per 2 sq. ft a) Firestone AP, HD or Pre-assembled b) Tru-Fast DP-H c) Dekfast #14 Base Sheet: mopped a) Firestone MB Base Sheet b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Firestone Type IV (4) M, Type VI (6) M Membrane: mopped a) Firestone SBS b) Firestone SBS FR c) Firestone Smooth d) Firestone SBS Premium e) Firestone SBS Premium FR Fire rating: a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1:12 SBS FR, SBS Premium FR (no coating required)	SBS Construction #2

\* Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. ¼" Georgia-Pacific "Dens-Deck" is placed directly on the Wood Deck under the insulation.

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** ADHERED\*  
**MEMBRANE:** FIRESTONE SBS, SBS PREMIUM, SBS SMOOTH, SBS FR, SBS PREMIUM FR  
**DECK:** Steel, concrete (new), concrete recover  
**CONSTRUCTION:** New or Tear-off

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-90	Steel (new) min. "C", Concrete (new), Concrete recover	Insulation: a) ISO 95+ Composite, min. 1.5" b) ACfoam Composite, min. 1.5" c) Hy-Therm Composite, min. 1.5" Attachment: mechanically attached at 1 fastener/plate (metal) per 2 sq. ft a) Firestone AP, HD or Pre-assembled b) Tru-Fast DP-H c) Dekfast #14 Coverboard: mopped a) Firestone FiberTop C, E or S, min. ½" b) FM Approved perlite, min ¾" c) FM Approved Fiberglas, min. ¾" Base Sheet: mopped a) Firestone MB Base Sheet b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Firestone Type IV (4) M, Type VI (6) M Ply Sheet: (optional) mopped a) Firestone Type IV (4) M, Type VI (6) M b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Firestone SBS Smooth e) Firestone SBS Premium Base Sheet Membrane: mopped a) Firestone SBS b) Firestone SBS FR c) Firestone Smooth d) Firestone SBS Premium e) Firestone SBS Premium FR Fire rating: a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1:12 SBS FR, SBS Premium FR (no coating required)	SBS Construction #4

\* Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. ¼" Georgia-Pacific "Dens-Deck" is placed directly on the Wood Deck under the insulation.

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

**Issued 6-9-06**

**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** ADHERED\*  
**MEMBRANE:** FIRESTONE SBS, SBS PREMIUM, SBS SMOOTH, SBS FR, SBS PREMIUM FR  
**DECK:** Steel, concrete (new), concrete recover  
**CONSTRUCTION:** New or Tear-off

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-90	Steel (new) min. "C", Concrete (new), Concrete recover	Barrier Board: loose laid a) FM Approved perlite, min. ¾" Insulation: a) ISO 95+ GL, min. 1.5" b) ACFoam II, min. 1.5" c) Hy-Therm AP, min. 1.5" Attachment: mechanically attached at 1 fastener/plate (metal) per 2 sq. ft a) Firestone AP, HD or Pre-assembled b) Tru-Fast DP-H c) Dekfast #14 Coverboard: mopped a) Firestone FiberTop C, E or S, min. ½" b) FM Approved perlite, min ¾" c) FM Approved Fiberglas, min. ¾" Base Sheet: mopped a) Firestone MB Base Sheet b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Firestone Type IV (4) M, Type VI (6) M Ply Sheet: (optional) mopped a) Firestone Type IV (4) M, Type VI (6) M b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Firestone SBS Smooth e) Firestone SBS Premium Base Sheet Membrane: mopped a) Firestone SBS b) Firestone SBS FR c) Firestone Smooth d) Firestone SBS Premium e) Firestone SBS Premium FR Fire rating: a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1:12 SBS FR, SBS Premium FR (no coating required)	SBS Construction #5

\* Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. ¼" Georgia-Pacific "Dens-Deck" is placed directly on the Wood Deck under the insulation.

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** ADHERED\*  
**MEMBRANE:** FIRESTONE SBS, SBS PREMIUM, SBS SMOOTH, SBS FR, SBS PREMIUM FR  
**DECK:** Steel, concrete (new), concrete recover  
**CONSTRUCTION:** New or Tear-off

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-90	Steel (new), Concrete (new), Concrete recover	Barrier Board: (optional) loose laid a) FM Approved perlite, min. 3/4" b) Type X gypsum, min. 5/8" Insulation: a) ISO 95+ GL, min. 2.2" Attachment: mechanically attached a) Firestone AP, HD or Pre-assembled, at 1 per 4 sq. ft. for min. 2.2" Coverboard: mopped a) Firestone FiberTop C, E or S, min. 1/2" b) FM Approved perlite, min 3/4" c) FM Approved Fiberglas, min. 3/4" d) Dens-Deck, min. 1/4" Ply Sheet: 2 or 3 plies, mopped a) Firestone Type IV (4) M, Type VI (6) M Membrane: mopped a) Firestone SBS b) Firestone SBS FR c) Firestone Smooth d) Firestone SBS Premium e) Firestone SBS Premium FR Fire rating: a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1:12 SBS FR, SBS Premium FR (no coating required)	SBS Construction # pending tested 2-04

\* Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. 1/4" Georgia-Pacific "Dens-Deck" is placed directly on the Wood Deck under the insulation.

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** ADHERED\*  
**MEMBRANE:** FIRESTONE SBS, SBS PREMIUM, SBS SMOOTH, SBS FR, SBS PREMIUM FR  
**DECK:** Steel, concrete (new), concrete recover  
**CONSTRUCTION:** New or Tear-off

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-90	Steel (new), Concrete (new), Concrete recover	Barrier Board: loose laid a) FM Approved perlite, min. ¾” b) Type X gypsum, min. 5/8” Insulation: a) ISO 95+ GL, min. 1.5” b) ISO 95+ GL, min. 2.0” Attachment: mechanically attached a) Firestone AP, HD or Pre-assembled, at 1 per 3.2 sq. ft for min. 1.5” or 1 per 4 sq. ft. for min. 2.0” Coverboard: mopped a) Firestone FiberTop C, E or S, min. ½” b) FM Approved perlite, min ¾” c) FM Approved Fiberglas, min. ¾” d) Dens-Deck, min. ¼” Ply Sheet: 2 or 3 plies, mopped a) Firestone Type IV (4) M, Type VI (6) M Membrane: mopped a) Firestone SBS b) Firestone SBS FR c) Firestone Smooth d) Firestone SBS Premium e) Firestone SBS Premium FR Fire rating: a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1:12 SBS FR, SBS Premium FR (no coating required)	SBS Construction #9, 9a

\* Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. ¼” Georgia-Pacific “Dens-Deck” is placed directly on the Wood Deck under the insulation.

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** ADHERED\*  
**MEMBRANE:** FIRESTONE SBS, SBS PREMIUM, SBS SMOOTH, SBS FR, SBS PREMIUM FR  
**DECK:** Steel, concrete (new), concrete recover  
**CONSTRUCTION:** New or Tear-off

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-90	Steel (new), Concrete (new), Concrete recover	Insulation: a) ISO 95+ GL, min. 1.5” b) ISO 95+ GL, min. 2.0” Attachment: mechanically attached a) Firestone AP, HD or Pre-assembled, at 1 per 3.2 sq. ft for min. 1.5” or 1 per 4 sq. ft. for min. 2.0” Coverboard: mopped a) Firestone FiberTop C, E or S, min. 1” b) FM Approved perlite, min ¾” c) FM Approved Fiberglas, min. ¾” d) Dens-Deck, min. ¼” Ply Sheet: 2 or 3 plies, mopped a) Firestone Type IV (4) M, Type VI (6) M Membrane: mopped a) Firestone SBS b) Firestone SBS FR c) Firestone Smooth d) Firestone SBS Premium e) Firestone SBS Premium FR Fire rating: a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1:12 SBS FR, SBS Premium FR (no coating required)	SBS Construction #9, 9a

\* Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. ¼” Georgia-Pacific “Dens-Deck” is placed directly on the Wood Deck under the insulation.

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** ADHERED\*  
**MEMBRANE:** FIRESTONE SBS, SBS PREMIUM, SBS SMOOTH, SBS FR, SBS PREMIUM FR  
**DECK:** Steel, concrete (new), concrete recover  
**CONSTRUCTION:** New or Tear-off

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-90	Steel (new), Concrete (new), Concrete recover	Barrier Board: (optional) loose laid a) FM Approved perlite, min. 3/4” b) Type X gypsum, min. 5/8” Insulation: a) ISO 95+ GL, min. 2.2” Attachment: mechanically attached a) Firestone AP, HD or Pre-assembled, at 1 per 4 sq. ft. for min. 2.2” Coverboard: mopped a) Firestone FiberTop C, E or S, min. 1/2” b) FM Approved perlite, min 3/4” c) FM Approved Fiberglas, min. 3/4” d) Dens-Deck, min. 1/4” Base Sheet: 1 ply, mopped a) Firestone Type IV (4) M, Type VI (6) M b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Firestone SBS Smooth Membrane: mopped a) Firestone SBS b) Firestone SBS FR c) Firestone Smooth d) Firestone SBS Premium e) Firestone SBS Premium FR Fire rating: a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1:12 SBS FR, SBS Premium FR (no coating required)	SBS Construction # pending testing 2-04

\* Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. 1/4” Georgia-Pacific “Dens-Deck” is placed directly on the Wood Deck under the insulation.

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** ADHERED\*  
**MEMBRANE:** FIRESTONE SBS, SBS PREMIUM, SBS SMOOTH, SBS FR, SBS PREMIUM FR  
**DECK:** Steel, concrete (new), concrete recover  
**CONSTRUCTION:** New or Tear-off

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-90	Steel (new), Concrete (new), Concrete recover	Barrier Board: loose laid a) FM Approved perlite, min. ¾” b) Type X gypsum, min. 5/8” Insulation: a) ISO 95+ GL, min. 1.5” b) ISO 95+ GL, min. 2.0” Attachment: mechanically attached a) Firestone AP, HD or Pre-assembled, at 1 per 3.2 sq. ft for min. 1.5” or 1 per 4 sq. ft. for min. 2.0” Coverboard: mopped a) Firestone FiberTop C, E or S, min. ½” b) FM Approved perlite, min ¾” c) FM Approved Fiberglas, min. ¾” d) Dens-Deck, min. ¼” Base Sheet: 1 ply, mopped a) Firestone Type IV (4) M, Type VI (6) M c) Firestone SBS Base Sheet d) Firestone SBS Premium Base Sheet e) Firestone SBS Smooth Membrane: mopped a) Firestone SBS b) Firestone SBS FR c) Firestone Smooth d) Firestone SBS Premium e) Firestone SBS Premium FR Fire rating: a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1:12 SBS FR, SBS Premium FR (no coating required)	SBS Construction #9, 9b, 9c

\* Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. ¼” Georgia-Pacific “Dens-Deck” is placed directly on the Wood Deck under the insulation.

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** ADHERED\*  
**MEMBRANE:** FIRESTONE SBS, SBS PREMIUM, SBS SMOOTH, SBS FR, SBS PREMIUM FR  
**DECK:** Steel, concrete (new), concrete recover  
**CONSTRUCTION:** New or Tear-off

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-90	Steel (new), Concrete (new), Concrete recover	Barrier Board: (optional) loose laid a) FM Approved perlite, min. ¾” b) Type X gypsum, min. 5/8” Insulation: a) ISO 95+ GL, min. 1.5” b) ISO 95+ GL, min. 2.0” Attachment: mechanically attached a) Firestone AP, HD or Pre-assembled, at 1 per 3.2 sq. ft for min. 1.5” or 1 per 4 sq. ft. for min. 2.0” Coverboard: mopped a) Firestone FiberTop C, E or S, min. 1” b) FM Approved perlite, min ¾” c) FM Approved Fiberglas, min. ¾” d) Dens-Deck, min. ¼” Base Sheet: 1 ply, mopped a) Firestone Type IV (4) M, Type VI (6) M b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Firestone SBS Smooth Membrane: mopped a) Firestone SBS b) Firestone SBS FR c) Firestone Smooth d) Firestone SBS Premium e) Firestone SBS Premium FR Fire rating: a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1:12 SBS FR, SBS Premium FR (no coating required)	SBS Construction #9, 9b, 9c

\* Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. ¼” Georgia-Pacific “Dens-Deck” is placed directly on the Wood Deck under the insulation.

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** ADHERED\*  
**MEMBRANE:** FIRESTONE SBS, SBS PREMIUM, SBS SMOOTH, SBS FR, SBS PREMIUM FR  
**DECK:** Steel (new)  
**CONSTRUCTION:** New

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-120	Steel (new) min. "C", attached 6" oc with #5 Tekes, max. 6' bar joist spacing	Insulation: a) ISO 95+ GL, min. 2.2" Attachment: mechanically attached at 1 fastener/plate (metal) per 2 sq. ft a) Firestone AP, HD Coverboard: mopped a) Firestone FiberTop C, E or S, min. 1/2" (4 x 4) Base Sheet: mopped a) Firestone MB Base Sheet b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Firestone Type IV (4) M, Type VI (6) M Ply Sheet: (optional) mopped a) Firestone Type IV (4) M, Type VI (6) M b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Firestone SBS Smooth e) Firestone SBS Premium Base Sheet Membrane: mopped a) Firestone SBS b) Firestone SBS FR c) Firestone Smooth d) Firestone SBS Premium e) Firestone SBS Premium FR Fire rating: a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1:12 SBS FR, SBS Premium FR (no coating required)	SBS Construction # pending tested 2-04

\* Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. 1/4" Georgia-Pacific "Dens-Deck" is placed directly on the Wood Deck under the insulation.

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** ADHERED\*  
**MEMBRANE:** FIRESTONE SBS, SBS PREMIUM, SBS SMOOTH, SBS FR, SBS PREMIUM FR  
**DECK:** Steel (new)  
**CONSTRUCTION:** New

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-120	Steel (new) min. "C", attached 6" oc with #5 Tek's, max. 6' bar joist spacing	Insulation: a) ISO 95+ GL, min. 1.5" Attachment: mechanically attached at 1 fastener/plate (metal) per 2 sq. ft a) Firestone AP, HD Coverboard: mopped a) Firestone FiberTop C, E or S, min. 1" (4 x 4) Base Sheet: mopped a) Firestone MB Base Sheet b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Firestone Type IV (4) M, Type VI (6) M Ply Sheet: (optional) mopped a) Firestone Type IV (4) M, Type VI (6) M b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Firestone SBS Smooth e) Firestone SBS Premium Base Sheet Membrane: mopped a) Firestone SBS b) Firestone SBS FR c) Firestone Smooth d) Firestone SBS Premium e) Firestone SBS Premium FR Fire rating: a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1:12 SBS FR, SBS Premium FR (no coating required)	SBS Construction #10

\* Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. 1/4" Georgia-Pacific "Dens-Deck" is placed directly on the Wood Deck under the insulation.

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** ADHERED\*  
**MEMBRANE:** FIRESTONE SBS, SBS PREMIUM, SBS SMOOTH, SBS FR, SBS PREMIUM FR  
**DECK:** Steel (new)  
**CONSTRUCTION:** New

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-150	Steel (new) min. "C", attached 6" oc with #5 Tek's, max. 6' bar joist spacing	Insulation: a) ISO 95+ GL, min. 2.2" Attachment: mechanically attached at 1 fastener/plate (metal) per 1.6 sq. ft a) Firestone AP, HD Coverboard: mopped a) Firestone FiberTop C, E or S, min. 1/2" (4 x 4) Base Sheet: mopped a) Firestone MB Base Sheet b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Firestone Type IV (4) M, Type VI (6) M Ply Sheet: mopped a) Firestone Type IV (4) M, Type VI (6) M b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Firestone SBS Smooth e) Firestone SBS Premium Base Sheet Membrane: mopped a) Firestone SBS b) Firestone SBS FR c) Firestone Smooth d) Firestone SBS Premium e) Firestone SBS Premium FR Fire rating: a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1:12 SBS FR, SBS Premium FR (no coating required)	SBS Construction #11

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

\* Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. ¼” Georgia-Pacific “Dens-Deck” is placed directly on the Wood Deck under the insulation.

**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** ADHERED\*  
**MEMBRANE:** FIRESTONE SBS, SBS PREMIUM, SBS SMOOTH, SBS FR, SBS PREMIUM FR  
**DECK:** Steel (new)  
**CONSTRUCTION:** New

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-150	Steel (new) min. “C”, attached 6” oc with #5 Tekes, max. 6” bar joist spacing	Insulation: a) ISO 95+ GL, min. 1.5” Attachment: mechanically attached at 1 fastener/plate (metal) per 1.6 sq. ft a) Firestone AP, HD Coverboard: mopped a) Firestone FiberTop C, E or S, min. 1” (4 x 4) Base Sheet: mopped a) Firestone MB Base Sheet b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Firestone Type IV (4) M, Type VI (6) M Ply Sheet: mopped a) Firestone Type IV (4) M, Type VI (6) M b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Firestone SBS Smooth e) Firestone SBS Premium Base Sheet Membrane: mopped a) Firestone SBS b) Firestone SBS FR c) Firestone Smooth d) Firestone SBS Premium e) Firestone SBS Premium FR Fire rating: a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel	SBS Construction #11

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

		set in hot asphalt d) 1A @ 1:12 SBS FR, SBS Premium FR (no coating required)	
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\* Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. ¼" Georgia-Pacific "Dens-Deck" is placed directly on the Wood Deck under the insulation.

**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** ADHERED  
**MEMBRANE:** FIRESTONE SBS, SBS PREMIUM, SBS SMOOTH, SBS FR, SBS PREMIUM FR  
**DECK:** Steel recover, wood recover, concrete (new), concrete recover  
**CONSTRUCTION:** New or Tear-off

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-90	Steel (min. "C") recover, wood recover, concrete (new), concrete recover	Insulation: min ½" to max. 1" a) FiberTop C, E or S Attachment: mechanically attached at 1 fastener/plate (metal) per 2 sq. ft a) Firestone AP, HD or Pre-assembled b) Tru-Fast DP-H c) Dekfast #14 Base Sheet: mopped a) Firestone MB Base Sheet b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet d) Firestone Type IV (4) M, Type VI (6) M Membrane: mopped a) Firestone SBS b) Firestone SBS FR c) Firestone Smooth d) Firestone SBS Premium e) Firestone SBS Premium FR Fire rating: a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1:12 SBS FR, SBS Premium FR (no coating required)	SBS Construction #3

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

<b>SYSTEM:</b>	<b>ADHERED*</b>
<b>MEMBRANE:</b>	<b>FIRESTONE SBS, SBS PREMIUM, SBS SMOOTH, SBS FR, SBS PREMIUM FR</b>
<b>DECK:</b>	<b>Steel, concrete (new), concrete recover</b>
<b>CONSTRUCTION:</b>	<b>New or Tear-off</b>

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-90	Steel (new), Concrete (new), Concrete recover	Barrier Board: loose laid a) FM Approved perlite, min. ¾” b) Type X gypsum, min. 5/8” Insulation: preliminary attachment a) ISO 95+ GL, min. 1.5” b) ACFoam II, min. 1.5” c) Hy-Therm AP, min. 1.5” Attachment: mechanically attached a) Firestone AP, HD or Pre-assembled Base Sheet: 1 ply, mechanically attached a) Firestone MB Base Sheet b) Firestone SBS Smooth c) Firestone SBS Base Sheet d) Firestone SBS Premium Base Sheet Attachment: 18” oc in 4” side laps and 18” oc and staggered in the center of the base sheet a) Firestone AP, HD and plates Ply Sheet: (optional), mopped a) Firestone MB Base Sheet b) Firestone Type IV (4) M, Type VI (6) M c) Firestone SBS Smooth d) Firestone SBS Base Sheet e) Firestone SBS Premium Base Sheet Membrane: mopped a) Firestone SBS b) Firestone SBS FR c) Firestone Smooth d) Firestone SBS Premium e) Firestone SBS Premium FR	SBS Construction #7

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

		<p>Fire rating:</p> <ul style="list-style-type: none"> <li>a) 1C @ 5:12 no coating required</li> <li>b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq.</li> <li>c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt</li> <li>d) 1A @ 1:12 SBS FR, SBS Premium FR (no coating required)</li> </ul>	
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\* Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. 1/4" Georgia-Pacific "Dens-Deck" is placed directly on the Wood Deck under the insulation.

**SYSTEM:** ADHERED  
**MEMBRANE:** FIRESTONE SBS, SBS PREMIUM, SBS SMOOTH, SBS FR, SBS PREMIUM FR  
**DECK:** Concrete (new)  
**CONSTRUCTION:** New or Tear-off

Rating	Deck	Roofing Assembly	Construction No.
1-240	Concrete (new)	<p>Insulation: (optional) mopped, multiple layers acceptable</p> <ul style="list-style-type: none"> <li>a) ISO 95+ GL, min. 1.5"</li> <li>b) ISO 95+ Composite, min. 1.5"</li> <li>c) FiberTop C, E, S, min 1/2"</li> <li>d) ACFoam II, min.1.5"</li> <li>e) Hy-Therm AP, min. 1.5"</li> <li>f) Multi-Max FA, min. 1.5"</li> <li>g) ACFoam Composite, min. 1.5"</li> <li>h) Hy-Therm Composite, min. 1.5"</li> </ul> <p>Coverboard: (optional) mopped</p> <ul style="list-style-type: none"> <li>a) Firestone FiberTop C, E or S, min. 1/2"</li> <li>b) FM Approved Fiberglas, min. 3/4"</li> <li>c) FM Approved perlite, min 3/4"</li> <li>d) Dens-Deck, min 1/4"</li> </ul> <p>Base Sheet: mopped, one layer</p> <ul style="list-style-type: none"> <li>a) Firestone MB Base Sheet</li> <li>b) Firestone SBS Base Sheet</li> <li>c) Firestone SBS Premium Base Sheet</li> <li>d) Firestone Type IV (4) M, Type VI (6) M</li> </ul> <p>Ply Sheet: (optional) mopped, one or more layer</p> <ul style="list-style-type: none"> <li>a) Firestone Type IV (4) M, Type VI (6) M</li> <li>b) Firestone SBS Base Sheet</li> <li>c) Firestone SBS Premium Base Sheet</li> <li>d) Firestone SBS Smooth</li> <li>e) Firestone SBS Premium Base Sheet</li> </ul> <p>Membrane: mopped</p> <ul style="list-style-type: none"> <li>a) Firestone SBS</li> <li>b) Firestone SBS FR</li> <li>c) Firestone Smooth</li> <li>d) Firestone SBS Premium</li> <li>e) Firestone SBS Premium FR</li> </ul> <p>Fire rating:</p> <ul style="list-style-type: none"> <li>a) 1C @ 5:12 no coating required</li> <li>b) 1A @ 1:12 with Firestone Fiber Aluminum</li> </ul>	SBS Construction #6, #8

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

		Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1:12 SBS FR, SBS Premium FR (no coating required)	
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**SYSTEM:** ADHERED  
**MEMBRANE:** FIRESTONE SBS, SBS PREMIUM, SBS SMOOTH, SBS FR, SBS PREMIUM FR  
**DECK:** Concrete (new)  
**CONSTRUCTION:** New

Rating	Deck	Roofing Assembly	Construction No.
1-420	Concrete (new) Primed or unprimed	Insulation: mopped a) Firestone ISO 95+ GL Insulation: (optional) mopped, max. ¼:12, ½” start a) Tapered ISO 95+ GL Base/Ply Sheet: mopped, 1 to 3 layers, any combination a) Firestone Type IV (4) M, Type VI (6) M b) Firestone MB Base Sheet c) Firestone SBS Base Sheet d) Firestone SBS Premium Base Sheet Membrane: mopped or torched as applicable a) Firestone SBS b) Firestone SBS FR c) Firestone SBS Smooth d) Firestone SBS Premium e) Firestone SBS Premium FR f) Firestone SBS torch g) Firestone SBS FR torch h) Firestone SBS Premium FR torch Fire rating: a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1:12 SBS FR, SBS Premium FR, SBS FR torch, SBS Premium FR torch (no coating required)	SBS Construction # 15

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

**NOTE:**

*Base sheet attachment to be increased by 70% in the perimeters and 160% in the corners. Perimeters /corners are defined as 10% of the lesser plan dimension or 40% of the eave (roof) height, whichever is least, but no less than 3 feet.*

**SYSTEM:** ADHERED  
**MEMBRANE:** FIRESTONE SBS, SBS PREMIUM, SBS SMOOTH, SBS FR, SBS PREMIUM FR  
**DECK:** Lightweight Insulating Concrete  
**CONSTRUCTION:** New

See pages 129 fastener density requirements

Rating	Deck	Roofing Assembly	Construction No.
1-90	Celcore (min. 36#)	Base Sheet: a) Firestone MB Base Sheet M b) Firestone SBS Poly torch Base c) Firestone SBS Poly Base d) Firestone SBS Premium Base e) Firestone SBS Glass torch Base Base Sheet Attachment: a) Firestone LWC Base Ply Fastener and Plate, 7" oc in the side lap and 7" oc in two rows equally spaced and staggered in the field of the base sheet Ply Sheet: one or two, mopped a) Firestone Type IV (4) M b) Firestone Type VI (6) M Membrane: mopped or torched as applicable a) Firestone SBS b) Firestone SBS FR c) Firestone SBS Smooth d) Firestone SBS Premium e) Firestone SBS Premium FR f) Firestone SBS torch g) Firestone SBS FR torch h) Firestone SBS Premium FR torch Fire rating: a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq.	LtWt Construction #4

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

		c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1:12 SBS FR, SBS Premium FR, SBS FR torch, SBS Premium FR torch (no coating required)	
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**NOTE:**

Base sheet attachment to be increased by 70% in the perimeters and 160% in the corners. Perimeters /corners are defined as 10% of the lesser plan dimension or 40% of the eave (roof) height, whichever is least, but no less than 3 feet.

**SYSTEM:** ADHERED  
**MEMBRANE:** FIRESTONE SBS, SBS PREMIUM, SBS SMOOTH, SBS FR, SBS PREMIUM FR  
**DECK:** Lightweight Insulating Concrete  
**CONSTRUCTION:** New

See pages 129 fastener density requirements

Rating	Deck	Roofing Assembly	Construction No.
1-90	Celcore (min. 36#)	Base Sheet: a) Firestone MB Base Sheet M b) Firestone SBS Poly Base c) Firestone SBS Poly torch Base d) Firestone SBS Premium Base e) Firestone SBS Glass torch Base Base Sheet Attachment: a) Firestone LWC Base Ply Fastener and Plate, 7" oc in the side lap and 7" oc in two rows equally spaced and staggered in the field of the base sheet Ply Sheet: one layer, heat fused or mopped as applicable a) Firestone SBS Poly Base b) Firestone SBS Glass torch Base c) Firestone SBS Premium Base d) Firestone MB Base M e) Firestone SBS Smooth Membrane: mopped or torched as applicable a) Firestone SBS b) Firestone SBS FR c) Firestone SBS Smooth d) Firestone SBS Premium e) Firestone SBS Premium FR f) Firestone SBS torch g) Firestone SBS FR torch h) Firestone SBS Premium FR torch	LtWt Construction #4

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

		<p>Fire rating:</p> <ul style="list-style-type: none"> <li>a) 1C @ 5:12 no coating required</li> <li>b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq.</li> <li>c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt</li> <li>d) 1A @ 1:12 SBS FR, SBS Premium FR, SBS FR torch, SBS Premium FR torch (no coating required)</li> </ul>	
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**NOTE:**

*Base sheet attachment to be increased by 70% in the perimeters and 160% in the corners. Perimeters /corners are defined as 10% of the lesser plan dimension or 40% of the eave (roof) height, whichever is least, but no less than 3 feet.*

**SYSTEM: ADHERED**  
**MEMBRANE: FIRESTONE SBS, SBS PREMIUM, SBS SMOOTH, SBS FR, SBS PREMIUM FR**  
**DECK: Lightweight Insulating Concrete**  
**CONSTRUCTION: New**

See pages 129 fastener density requirements

Rating	Deck	Roofing Assembly	Construction No.
1-90	Celcore (min. 36#)	<p>Base Sheet:</p> <ul style="list-style-type: none"> <li>a) Firestone MB Base Sheet M</li> <li>b) Firestone SBS Poly Base</li> <li>c) Firestone SBS Premium Base</li> <li>d) Firestone Venting Base Sheet</li> </ul> <p>Base Sheet Attachment:</p> <ul style="list-style-type: none"> <li>a) Firestone LWC Base Ply Fastener and Plate, 7" oc in the side lap and 7" oc in two rows equally spaced and staggered in the field of the base sheet</li> </ul> <p>Ply Sheet: two layers, mopped, any combination</p> <ul style="list-style-type: none"> <li>a) Firestone Type IV (4) M, Type VI (6) M</li> <li>b) Firestone SBS Poly Base</li> <li>c) Firestone MB Base M</li> <li>d) Firestone SBS Premium Base</li> <li>e) Firestone SBS Base</li> </ul> <p>Membrane: mopped</p> <ul style="list-style-type: none"> <li>a) Firestone SBS</li> <li>b) Firestone SBS Smooth</li> <li>c) Firestone SBS FR</li> <li>d) Firestone SBS Premium FR</li> <li>e) Firestone SBS Premium</li> </ul> <p>Fire rating:</p> <ul style="list-style-type: none"> <li>a) 1C @ 5:12 no coating required</li> <li>b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq.</li> </ul>	LtWT rating pending

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

		c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1:12 SBS FR, SBS Premium FR, SBS FR torch, SBS Premium FR torch (no coating required)	
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**NOTE:**

Base sheet attachment to be increased by 70% in the perimeters and 160% in the corners. Perimeters /corners are defined as 10% of the lesser plan dimension or 40% of the eave (roof) height, whichever is least, but no less than 3 feet.

**MEMBRANE:** FIRESTONE SBS, SBS PREMIUM, SBS SMOOTH, SBS FR, SBS PREMIUM FR  
**DECK:** Lightweight Insulating Concrete  
**CONSTRUCTION:** New

See pages 129 fastener density requirements

Rating	Deck	Roofing Assembly	Construction No.
1-150	Celcore (min. 42#)	Base Sheet: a) Firestone MB Base Sheet M b) Firestone SBS Poly Base c) Firestone SBS Premium Base d) Firestone Venting Base Sheet Base Sheet Attachment: a) Firestone LWC Base Ply Fastener and Plate, 7" oc in the side lap and 7" oc in two rows equally spaced and staggered in the field of the base sheet Ply Sheet: two layers, mopped, any combination a) Firestone Type IV (4) M, Type VI (6) M b) Firestone SBS Poly Base c) Firestone MB Base M d) Firestone SBS Premium Base e) Firestone SBS Base Membrane: mopped a) Firestone SBS b) Firestone SBS FR c) Firestone SBS Smooth d) Firestone SBS Premium e) Firestone SBS Premium FR Fire rating: a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq.	LtWT rating pending

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

		c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1:12 SBS FR, SBS Premium FR, SBS FR torch, SBS Premium FR torch (no coating required)	
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**NOTE:**

Base sheet attachment to be increased by 70% in the perimeters and 160% in the corners. Perimeters /corners are defined as 10% of the lesser plan dimension or 40% of the eave (roof) height, whichever is least, but no less than 3 feet.

<b>SYSTEM:</b>	<b>ADHERED</b>
<b>MEMBRANE:</b>	<b>FIRESTONE SBS, SBS PREMIUM, SBS SMOOTH, SBS FR, SBS PREMIUM FR</b>
<b>DECK:</b>	<b>Lightweight Insulating Concrete</b>
<b>CONSTRUCTION:</b>	<b>New</b>

See pages 129 fastener density requirements

Rating	Deck	Roofing Assembly	Construction No.
1-90	Elastizell Range II (min. 45#),	Base Sheet: a) Firestone MB Base Sheet M b) Firestone SBS Poly Base c) Firestone SBS Poly torch Base d) Firestone SBS Premium Base e) Firestone SBS Glass torch Base Base Sheet Attachment: a) Firestone LWC Base Ply Fastener and Plate, 7" oc in the side lap and 7" oc in two rows equally spaced and staggered in the field of the base sheet Ply Sheet: one layer, heat fused or mopped as appropriate a) Firestone SBS Glass torch Base b) Firestone SBS Poly Base c) Firestone SBS Premium Base d) Firestone MB Base M e) Firestone SBS Smooth Membrane: mopped or torched as applicable a) Firestone SBS FR b) Firestone SBS Premium c) Firestone SBS d) Firestone SBS Premium FR e) Firestone SBS Smooth f) Firestone SBS torch	LtWt Construction #17

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

		g) Firestone SBS FR torch h) Firestone SBS Premium FR torch Fire rating: a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1:12 SBS FR, SBS Premium FR, SBS FR torch, SBS Premium FR torch (no coating required)	
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**NOTE:**

Base sheet attachment to be increased by 70% in the perimeters and 160% in the corners. Perimeters /corners are defined as 10% of the lesser plan dimension or 40% of the eave (roof) height, whichever is least, but no less than 3 feet.

**SYSTEM:** ADHERED\*  
**MEMBRANE:** FIRESTONE SBS Torch, SBS FR torch, SBS PREMIUM FR torch  
**DECK:** Steel, Concrete  
**CONSTRUCTION:** New

See pages 129 fastener density requirements

Rating	Deck	Roofing Assembly	Construction No.
1-90	Steel (new-min."C"), Concrete (new), Concrete (recover)	Insulation: loose laid a) Firestone ISO 95+ GL, min. 1.5" Coverboard: preliminary securement a) Min.1/2" FiberTop C, E, S b) Min.3/4" any FM Approved perlite Base Sheet: attached 12" oc in side laps and 18" oc in 2 rows equally spaced and staggered in the field of the base sheet with AP or HD fasteners and insulation plates a) Firestone MB Base Sheet M b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet Membrane: Heat fused a) Firestone SBS torch b) Firestone SBS FR torch c) Firestone SBS Premium FR torch Fire rating: a) 1C @ 5:12 – no coating required b) 1A @ 1:12 – Firestone Fibered Aluminum Roof Coating or Karnak 97 AF @ 1-1/2 gal /sq c) 1A @ 1-1/2:12 – Roof gravel set in flood coat of asphalt d) 1A @ 1:12 – no coating (FR membranes only)	SBS torch Construction #1

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

\* Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. ¼” Georgia-Pacific “Dens-Deck” is placed directly on the Wood Deck under the insulation.

**NOTE:**

Base sheet attachment to be increased by 70% in the perimeters and 160% in the corners. Perimeters /corners are defined as 10% of the lesser plan dimension or 40% of the eave (roof) height, whichever is least, but no less than 3 feet.

**SYSTEM:** ADHERED\*  
**MEMBRANE:** FIRESTONE SBS Torch, SBS FR torch, SBS PREMIUM FR torch  
**DECK:** Steel, Concrete  
**CONSTRUCTION:** New

See pages 129 fastener density requirements

Rating	Deck	Roofing Assembly	Construction No.
1-90	Steel (new-min.”C”), Concrete (new), Concrete (recover)	Insulation: preliminary securement a) Firestone ISO 95+ Composite b) Any FM Approve Perlite/ISO composite Base Sheet: attached 12” oc in side laps and 18” oc in 2 rows equally spaced and staggered in the field of the base sheet with AP or HD fasteners and insulation plates a) Firestone SBS Base Sheet b) Firestone SBS Premium Base Sheet c) Firestone MB Base Sheet M Membrane: Heat fused a) Firestone SBS FR torch b) Firestone SBS Premium FR torch c) Firestone SBS torch Fire rating: a) 1C @ 5:12 – no coating required b) 1A @ 1:12 – Firestone Fibered Aluminum Roof Coating or Karnak 97 AF @ 1-1/2 gal /sq c) 1A @ 1-1/2:12 – Roof gravel set in flood coat of asphalt d) 1A @ 1:12 – no coating (FR membranes only)	SBS torch Construction #2

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

\* Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. ¼” Georgia-Pacific “Dens-Deck” is placed directly on the Wood Deck under the insulation.

**NOTE:**

Base sheet attachment to be increased by 70% in the perimeters and 160% in the corners. Perimeters /corners are defined as 10% of the lesser plan dimension or 40% of the eave (roof) height, whichever is least, but no less than 3 feet.

<b>SYSTEM:</b>	<b>Mechanically Attached*</b>
<b>MEMBRANE:</b>	<b>FIRESTONE SBS Torch, SBS FR torch, SBS PREMIUM FR torch</b>
<b>DECK:</b>	<b>Steel, Concrete</b>
<b>CONSTRUCTION:</b>	<b>New</b>

See pages 129 fastener density requirements

Rating	Deck	Roofing Assembly	Construction No.
1-90	Steel (recover)	Insulation: preliminary attachment a) Firestone FiberTop C, E, S min. ½”, max 1” b) Any FM Approve Perlite, min. ¾” to max. 1” Base Sheet: attached 12” oc in side laps and 18” oc in 2 rows equally spaced and staggered in the field of the base sheet with AP or HD fasteners and insulation plates a) Firestone MB Base Sheet M b) Firestone SBS Base Sheet c) Firestone SBS Premium Base Sheet Membrane: Heat fused a) Firestone SBS torch b) Firestone SBS FR torch c) Firestone SBS Premium FR torch Fire rating: a) 1C @ 5:12 – no coating required b) 1A @ 1:12 – Firestone Fibered Aluminum Roof Coating or Karnak 97 AF @ 1-1/2 gal /sq c) 1A @ 1-1/2:12 – Roof gravel set in flood coat of asphalt d) 1A @ 1:12 – no coating (FR membranes only)	SBS torch Construction #3  * Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. ¼” Georgia- Pacific “Dens-Deck” is placed directly on the Wood Deck under the insulation.

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

**NOTE:**

*Fastener rows in the perimeters shall be ≤ 60% of the field spacing. Fastener rows in the corners shall be ≤ 40% of the field spacing. Perimeters /corners are defined as 10% of the lesser plan dimension or 40% of the eave (roof) height, whichever is least, but no less than 3 feet.*

**SYSTEM:** Mechanically Attached\*  
**MEMBRANE:** FIRESTONE SBS Torch, SBS FR torch, SBS PREMIUM FR torch  
**DECK:** Steel, Concrete  
**CONSTRUCTION:** New

Rating	Deck	Roofing Assembly	Construction No.
1-60	Steel (new-min."C"), Concrete (new), Concrete (recover)	Insulation preliminary securement a) Firestone ISO 95+ GL, min. 1.5" Base Sheet: a) Firestone SBS Poly torch Base Base Sheet Attachment: MB 2" Barbed Metal Seam Plate attached 24" oc with Firestone AP fasteners in the 4" side laps. Side laps heat fused. Membrane: Heat fused a) Firestone SBS torch b) Firestone SBS FR torch c) Firestone SBS Premium FR torch Fire rating: a) 1C @ 5:12 – no coating required b) 1A @ 1:12 – Firestone Fibered Aluminum Roof Coating or Karnak 97 AF @ 1-1/2 gal /sq c) 1A @ 1-1/2:12 – Roof gravel set in flood coat of asphalt d) 1A @ 1:12 – no coating (FR membranes only)	SBS torch Construction #6  * Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. ¼" Georgia-Pacific "Dens-Deck" is placed directly on the Wood Deck under the insulation.

**SYSTEM:** Mechanically Attached\*  
**MEMBRANE:** FIRESTONE SBS Torch, SBS FR torch, SBS PREMIUM FR torch  
**DECK:** Steel, Concrete  
**CONSTRUCTION:** New

See pages 129 fastener density requirements

Rating	Deck	Roofing Assembly	Construction No.

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

1-90	Steel (new-min."C"), Concrete (new), Concrete (recover)	<p>Insulation preliminary securement</p> <p>a) Firestone ISO 95+ GL, min. 1.5"</p> <p>Base Sheet:</p> <p>a) Firestone SBS Poly torch Base</p> <p>Base Sheet Attachment: MB 2" Barbed Metal Seam Plate attached 18" oc with Firestone AP fasteners in the 4" side laps. Side laps heat fused.</p> <p>Membrane: Heat fused</p> <p>a) Firestone SBS torch</p> <p>b) Firestone SBS FR torch</p> <p>c) Firestone SBS Premium FR torch</p> <p>Fire rating:</p> <p>a) 1C @ 5:12 – no coating required</p> <p>b) 1A @ 1:12 – Firestone Fibered Aluminum Roof Coating or Karnak 97 AF @ 1-1/2 gal /sq</p> <p>c) 1A @ 1-1/2:12 – Roof gravel set in flood coat of asphalt</p> <p>d) 1A @ 1:12 – no coating (FR membranes only)</p>	<p>SBS torch Construction #7</p> <p>* Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. ¼" Georgia-Pacific "Dens-Deck" is placed directly on the Wood Deck under the insulation.</p>
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**NOTE:**

*Fastener rows in the perimeters shall be ≤ 60% of the field spacing. Fastener rows in the corners shall be ≤ 40% of the field spacing. Perimeters /corners are defined as 10% of the lesser plan dimension or 40% of the eave (roof) height, whichever is least, but no less than 3 feet.*

**SYSTEM:** Mechanically Attached\*  
**MEMBRANE:** FIRESTONE SBS Torch, SBS FR torch, SBS PREMIUM FR torch  
**DECK:** Steel, Concrete  
**CONSTRUCTION:** New

Rating	Deck	Roofing Assembly	Construction No.
1-135	Steel (new-min."C"), Concrete (new), Concrete (recover)	<p>Insulation preliminary securement</p> <p>a) Firestone ISO 95+ GL, min. 1.5"</p> <p>Base Sheet:</p> <p>a) Firestone SBS Poly torch Base</p> <p>Base Sheet Attachment: Firestone Metal Batten Bar attached 12" oc with Firestone HD fasteners in the 4" side laps. Side laps heat fused.</p> <p>Membrane: Heat fused</p> <p>a) Firestone SBS torch</p> <p>b) Firestone SBS FR torch</p> <p>c) Firestone SBS Premium FR torch</p> <p>Fire rating:</p> <p>a) 1C @ 5:12 – no coating required</p> <p>b) 1A @ 1:12 – Firestone Fibered Aluminum Roof Coating or Karnak 97 AF @ 1-1/2 gal /sq</p> <p>c) 1A @ 1-1/2:12 – Roof gravel set in flood coat of asphalt</p> <p>d) 1A @ 1:12 – no coating (FR membranes only)</p>	<p>SBS torch Construction (pending)</p> <p>* Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. ¼" Georgia-Pacific "Dens-Deck" is placed directly on the Wood Deck under the insulation.</p>

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** ADHERED\*  
**MEMBRANE:** FIRESTONE SBS Torch, SBS FR torch, SBS PREMIUM FR torch  
**DECK:** Steel, Concrete  
**CONSTRUCTION:** New

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-90	Steel (new-min."C"), Concrete (new), Concrete (recover)	Insulation: loose laid a) Firestone ISO 95+ GL, min. 1.5" Coverboard: preliminary securement a) Min. ¼" Dens- Deck b) Min. ¼" Dens-Deck Prime Coverboard Attachment: 1 per 2 sq. ft with Firestone AP or HD fasteners and insulation plates Base Sheet: heat fused to Dens-Deck a) Firestone SBS Glass torch Base b) Firestone SBS Poly torch Base Membrane: Heat fused a) Firestone SBS torch b) Firestone SBS FR torch c) Firestone SBS Premium FR torch Fire rating: a) 1C @ 5:12 – no coating required b) 1A @ 1:12 – Firestone Fibered Aluminum Roof Coating or Karnak 97 AF @ 1-1/2 gal /sq c) 1A @ 1-1/2:12 – Roof gravel set in flood coat of asphalt d) 1A @ 1:12 – no coating (FR membranes only)	SBS torch Construction #4

\* Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. ¼" Georgia-Pacific "Dens-Deck" is placed directly on the Wood Deck under the insulation.

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** Adhered (cold adhesive)\*  
**MEMBRANE:** FIRESTONE SBS, SBS FR, SBS SMOOTH, SBS PREMIUM SBS PREMIUM FR  
**DECK:** Steel, Concrete  
**CONSTRUCTION:** New

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-90	Steel (new, min. "C"), Concrete (new), Concrete (recover)	Insulation: a) Firestone ISO 300, min. 1.5" Insulation Attachment: 1 Firestone AP or HD Fastener/plate per 2 sq. ft. Base Sheet: one layer, set in 1-1/2 to 2 gal/sq of Firestone MB Cold Adhesive a) Firestone MB Base Sheet b) Firestone Type IV (4) M or Type VI (6) M c) Firestone SBS Base d) Firestone SBS poly Base e) Firestone SBS Premium Base Membrane: set in 1-1/2 to 2 gal/sq of Firestone MB Cold Adhesive a) Firestone SBS b) Firestone SBS FR c) Firestone SBS Smooth d) Firestone SBS Premium e) Firestone SBS Premium FR Fire rating: a) 1C @ 5:12 – no coating required b) 1A @ 1:12 – Firestone Fibered Aluminum Roof Coating or Karnak 97 AF @ 1-1/2 gal /sq c) 1A @ 1-1/2:12 – Roof gravel set in flood coat of asphalt	SBS Cold Construction (pending)

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

		d) 1A @ 1:12 – no coating (FR membranes only)	
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\* Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. ¼” Georgia-Pacific “Dens-Deck” is placed directly on the Wood Deck under the insulation.

**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

<b>SYSTEM:</b>	<b>Adhered (cold adhesive)*</b>
<b>MEMBRANE:</b>	<b>FIRESTONE SBS, SBS FR, SBS SMOOTH, SBS PREMIUM SBS PREMIUM FR</b>
<b>DECK:</b>	<b>Steel, Concrete</b>
<b>CONSTRUCTION:</b>	<b>New</b>

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-75	Steel (new, min. “C”), Concrete (new), Concrete (recover)	Insulation: <ul style="list-style-type: none"> <li>a) Firestone ISO 95+ GL, min. 1.5”</li> <li>b) Coverboard (optional)               <ul style="list-style-type: none"> <li>1) min. ½” Firestone FiberTop C,E, S</li> <li>2) min. ¼” Dens-Deck</li> </ul> </li> </ul> Insulation Attachment: 1 Firestone AP or HD Fastener/plate per 2 sq. ft. Base Sheet: set in 1-1/2 to 2 gal/sq of Firestone MB Cold Adhesive <ul style="list-style-type: none"> <li>a) Firestone SBS Base, one layer</li> <li>b) Firestone MB Base Sheet, one layer</li> <li>c) Firestone SBS poly Base, one layer</li> <li>d) Firestone SBS Premium Base, one layer</li> <li>e) Firestone Type IV (4) M or Type VI (6) M, one or two layers</li> </ul> Membrane: set in 1-1/2 to 2 gal/sq of Firestone MB Cold Adhesive <ul style="list-style-type: none"> <li>a) Firestone SBS</li> <li>b) Firestone SBS FR</li> <li>c) Firestone SBS Smooth</li> <li>d) Firestone SBS Premium</li> <li>e) Firestone SBS Premium FR</li> </ul>	SBS Cold Construction #13

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

		Fire rating: a) 1C @ 5:12 – no coating required b) 1A @ 1:12 – Firestone Fibered Aluminum Roof Coating or Karnak 97 AF @ 1-1/2 gal /sq c) 1A @ 1-1/2:12 – Roof gravel set in flood coat of asphalt d) 1A @ 1:12 – no coating (FR membranes only)	
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\* Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. ¼” Georgia-Pacific “Dens-Deck” is placed directly on the Wood Deck under the insulation.

### NOTE:

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** Adhered (cold adhesive)\*  
**MEMBRANE:** FIRESTONE SBS, SBS FR, SBS PREMIUM, SBS PREMIUM FR  
**DECK:** Steel, Concrete  
**CONSTRUCTION:** New

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-90	Steel (new, min “C”), concrete (new), concrete (recover)	Insulation: Mechanically attached with AP or HD fastener/plates at 1 per 2 sq. ft. a) min 2.0” ISO 95+ GL Base Sheet: SBS Base, SBS Premium Base or SBS Poly Base, set in 1-1/2 to 2 gal of Multi-Purpose Cold Adhesive Membrane: SBS, SBS FR, SBS Premium, SBS Premium FR Fire rating: a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1/2:12 SBS FR, SBS Premium FR (no coating required)	Construction number pending

Rating	Deck	Roofing Assembly	Construction No.
1-60	Steel (new, min “C”), concrete (new), concrete (recover)	Insulation: Mechanically attached with AP or HD fastener/plates at 1 per 2 sq. ft. a) min 2.0” ISO 95+ GL Base Sheet: MB Base M, set in 1-1/2 to 2 gal of Multi-Purpose Cold Adhesive Membrane: SBS, SBS FR, SBS Premium, SBS Premium FR	Construction number pending

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

		<p>Fire rating:</p> <ul style="list-style-type: none"> <li>a) 1C @ 5:12 no coating required</li> <li>b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq.</li> <li>c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt</li> <li>d) 1A @ 1/2:12 SBS FR, SBS Premium FR (no coating required)</li> </ul>	
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**SYSTEM:** Adhered (cold adhesive)\*  
**MEMBRANE:** FIRESTONE SBS, SBS FR, SBS SMOOTH, SBS PREMIUM SBS PREMIUM FR  
**DECK:** Concrete  
**CONSTRUCTION:** New

Rating	Deck	Roofing Assembly	Construction No.
1-285	Concrete (new), Concrete, (reroof)	<p>Base Sheet: one ply, set in Firestone MB Cold Adhesive at 1-1/2 to 2 gal/sq to primer concrete deck</p> <ul style="list-style-type: none"> <li>a) Firestone Type IV (4) M , Type VI (6) M</li> <li>b) Firestone MB Base Sheet</li> <li>c) Firestone SBS Base Sheet</li> <li>d) Firestone SBS Poly Base</li> <li>e) Firestone SBS Premium Base</li> </ul> <p>Membrane: set in 1-1/2 to 2 gal/sq of Firestone MB Cold Adhesive</p> <ul style="list-style-type: none"> <li>a) Firestone SBS FR</li> <li>b) Firestone SBS</li> <li>c) Firestone SBS Smooth</li> <li>d) Firestone SBS Premium</li> <li>e) Firestone SBS Premium FR</li> </ul> <p>Fire rating:</p> <ul style="list-style-type: none"> <li>a) 1C @ 5:12 – no coating required</li> <li>b) 1A @ 1:12 – Firestone Fibered Aluminum Roof Coating or Karnak 97 AF @ 1-1/2 gal /sq</li> <li>c) 1A @ 1-1/2:12 – Roof gravel set in flood coat of asphalt</li> <li>d) 1A @ 1:12 – no coating (FR membranes only)</li> </ul>	SBS cold Construction (pending)

\* Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. ¼” Georgia-Pacific “Dens-Deck” is placed directly on the Wood Deck under the insulation.

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

**SYSTEM:** Adhered (cold adhesive)\*  
**MEMBRANE:** FIRESTONE SBS, SBS FR, SBS SMOOTH, SBS PREMIUM SBS PREMIUM FR  
**DECK:** Concrete  
**CONSTRUCTION:** New

Rating	Deck	Roofing Assembly	Construction No.
1-135	Concrete (new), Concrete (reroof)	<p>Base Sheet: one ply, set in Firestone MB Cold Adhesive at 1-1/2 to 2 gal/sq to primer concrete deck</p> <p>a) Firestone Type IV (4) M , Type VI (6) M  b) Firestone MB Base Sheet  c) Firestone SBS Base Sheet  d) Firestone SBS Poly Base  e) Firestone SBS Premium Base</p> <p>Insulation: single layer, set in Firestone MB Cold Adhesive at 1-1/2 to 2 gal/sq</p> <p>a) Firestone ISO 95+ GL, min. 1.5"</p> <p>Membrane: set in 1-1/2 to 2 gal/sq of Firestone MB Cold Adhesive</p> <p>a) Firestone SBS FR  b) Firestone SBS  c) Firestone SBS Smooth  d) Firestone SBS Premium  e) Firestone SBS Premium FR</p> <p>Fire rating:</p> <p>a) 1C @ 5:12 – no coating required  b) 1A @ 1:12 – Firestone Fibered Aluminum Roof Coating or Karnak 97 AF @ 1-1/2 gal /sq  c) 1A @ 1-1/2:12 – Roof gravel set in flood coat of asphalt  d) 1A @ 1:12 – no coating (FR membranes only)</p>	SBS Cold Construction #16

\* Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. ¼" Georgia-Pacific "Dens-Deck" is placed directly on the Wood Deck under the insulation.

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

**SYSTEM:** Adhered (cold adhesive)\*  
**MEMBRANE:** FIRESTONE SBS, SBS FR, SBS PREMIUM, SBS PREMIUM FR  
**DECK:** Concrete  
**CONSTRUCTION:** New

<b>Rating</b>	<b>Deck</b>	<b>Roofing Assembly</b>	<b>Construction No.</b>
1-135	Concrete (new, re-roof)	Insulation: set in I.S.O. Twin Pack 12" oc a) min 1.5" ISO 95+ GL Insulation: (optional), set in I.S.O. Twin Pack 12" oc a) Tapered ISO 95+ GL Base Sheet: SBS Base, set in 1-1/2 to 2 gal of Multi-Purpose Cold Adhesive Membrane: SBS, SBS FR, SBS Premium, SBS Premium FR Fire rating: a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1/2:12 SBS FR, SBS Premium FR (no coating required)	Construction number pending

<b>Rating</b>	<b>Deck</b>	<b>Roofing Assembly</b>	<b>Construction No.</b>
1-315	Concrete (new, re-roof)	Base Sheet: SBS Base, set in 1-1/2 to 2 gal of Multi-Purpose Cold Adhesive Membrane: SBS, SBS FR, SBS Premium, SBS Premium FR Fire rating: a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1/2:12 SBS FR, SBS Premium FR (no coating required)	Construction number pending

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** Adhered (cold adhesive)\*  
**MEMBRANE:** FIRESTONE APP 160 Cool, APP 170 Cool, APP 180 Cool, APP 180 FR Cool  
**DECK:** Steel, Concrete  
**CONSTRUCTION:** New

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-90	Steel (new, min "C"), concrete (new), concrete (recover)	Insulation: Mechanically attached with AP or HD fastener/plates at 1 per 2 sq. ft. a) min 2.0" ISO 95+ GL Base Sheet: APP 80 Glass Base, set in 1-1/2 to 2 gal of Multi-Purpose Cold Adhesive Membrane: APP 160 Cool, APP 170 Cool, APP 180 Cool, APP 180 FR Cool Fire rating: a) 1C @ ½:12 with no coating b) 1B @ 1:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq c) 1A @ ¾:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq d) 1A @ 2:12 with 400 lbs/sq. of roofing gravel set in hot asphalt e) 1A @ 1/2:12 APP 180 FR (no coating required)	Construction number pending

Rating	Deck	Roofing Assembly	Construction No.
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"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

1-90	Steel (new, min "C"), concrete (new), concrete (recover)	<b>Insulation:</b> Mechanically attached with AP or HD fastener/plates at 1 per 2 sq. ft. a) min 2.0" ISO 95+ GL <b>Base Sheet:</b> SBS Base, SBS Premium Base or SBS Poly Base, set in 1-1/2 to 2 gal of Multi-Purpose Cold Adhesive <b>Membrane:</b> APP 160 Cool, APP 170 Cool, APP 180 Cool, APP 180 FR Cool <b>Fire rating:</b> a) 1C @ 1/2:12 with no coating b) 1B @ 1:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq c) 1A @ 3/4:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq d) 1A @ 2:12 with 400 lbs/sq. of roofing gravel set in hot asphalt e) 1A @ 1/2:12 APP 180 FR (no coating required)	Construction number pending
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**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** Adhered (cold adhesive)\*  
**MEMBRANE:** FIRESTONE APP 160 Cool, APP 170 Cool, APP 180 Cool, APP 180 FR Cool  
**DECK:** Steel, Concrete  
**CONSTRUCTION:** New

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-60	Steel (new, min "C"), concrete (new), concrete (recover)	<b>Insulation:</b> Mechanically attached with AP or HD fastener/plates at 1 per 2 sq. ft. a) min 2.0" ISO 95+ GL <b>Base Sheet:</b> MB Base M, set in 1-1/2 to 2 gal of Multi-Purpose Cold Adhesive <b>Membrane:</b> APP 160 Cool, APP 170 Cool, APP 180 Cool, APP 180 FR Cool <b>Fire rating:</b> a) 1C @ 1/2:12 with no coating b) 1B @ 1:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq c) 1A @ 3/4:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq d) 1A @ 2:12 with 400 lbs/sq. of roofing gravel set in hot asphalt e) 1A @ 1/2:12 APP 180 FR (no coating required)	Construction number pending

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

Rating	Deck	Roofing Assembly	Construction No.
1-90	Steel (new, min "C"), concrete (new), concrete (recover)	Insulation: Loose laid a) min 2.0" ISO 95+ GL Base Sheet: MB Base M, attached with AP fastener/plates 12" oc at the side laps and 12" oc in two rows equally spaced and staggered in the field of the base sheet Membrane: APP 160 Cool, APP 170 Cool, APP 180 Cool, APP 180 FR Cool, laps and membrane set in Multi-Purpose Cold adhesive at a rate of 1.5 - 2.0 gal/sq Fire rating: a) 1C @ ½:12 with no coating b) 1B @ 1:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq c) 1A @ ¾:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq d) 1A @ 2:12 with 400 lbs/sq. of roofing gravel set in hot asphalt e) 1A @ 1/2:12 APP 180 FR (no coating required)	Construction number pending

**SYSTEM:** Adhered (cold adhesive)\*  
**MEMBRANE:** FIRESTONE APP 160 Cool, APP 170 Cool, APP 180 Cool, APP 180 FR Cool  
**DECK:** Steel, Concrete  
**CONSTRUCTION:** New

Rating	Deck	Roofing Assembly	Construction No.
1-90	Steel (new, min "C"), concrete (new), concrete (recover)	Insulation: Loose laid a) min 2.0" ISO 95+ GL Base Sheet: SBS Poly torch base, attached with AP fasteners and 2" barbed metal seam plates 12" oc within the 4" heat welded side laps Membrane: APP 160 Cool, APP 170 Cool, APP 180 Cool, APP 180 FR Cool, membrane and laps set in Multi-Purpose Cold adhesive at a rate of 1.5 - 2.0 gal/sq Fire rating: a) 1C @ ½:12 with no coating b) 1B @ 1:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq c) 1A @ ¾:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq d) 1A @ 2:12 with 400 lbs/sq. of roofing gravel set in hot asphalt e) 1A @ 1/2:12 APP 180 FR (no coating required)	Construction number pending

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

**SYSTEM:** Adhered (cold adhesive)\*  
**MEMBRANE:** FIRESTONE APP 160 Cool, APP 170 Cool, APP 180 Cool, APP 180 FR Cool  
**DECK:** Concrete  
**CONSTRUCTION:** New

Rating	Deck	Roofing Assembly	Construction No.
1-315	Concrete (new, re-roof)	Base Sheet: APP 80 Glass Base Cool, set in Multi-Purpose Cold adhesive at a rate of 1.5 - 2.0 gal/sq Membrane: APP 160 Cool, APP 170 Cool, APP 180 Cool, APP 180 FR Cool, membrane and laps set in Multi-Purpose Cold adhesive at a rate of 1.5 - 2.0 gal/sq Fire rating: <ul style="list-style-type: none"> <li>a) 1C @ ½:12 with no coating</li> <li>b) 1B @ 1:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq</li> <li>c) 1A @ ¾:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq</li> <li>d) 1A @ 2:12 with 400 lbs/sq. of roofing gravel set in hot asphalt</li> <li>e) 1A @ 1/2:12 APP 180 FR (no coating required)</li> </ul>	Construction number pending

Rating	Deck	Roofing Assembly	Construction No.
1-390	Concrete (new, re-roof)	Base Sheet: SBS Base, set in Multi-Purpose Cold adhesive at a rate of 1.5 - 2.0 gal/sq Membrane: APP 160 Cool, APP 170 Cool, APP 180 Cool, APP 180 FR Cool, membrane and laps set in Multi-Purpose Cold adhesive at a rate of 1.5 - 2.0 gal/sq	Construction number pending

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

		Fire rating: a) 1C @ ½:12 with no coating b) 1B @ 1:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq c) 1A @ ¾:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq d) 1A @ 2:12 with 400 lbs/sq. of roofing gravel set in hot asphalt e) 1A @ 1/2:12 APP 180 FR (no coating required)	
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**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

<b>SYSTEM:</b>	<b>MB Base SA</b>
<b>MEMBRANE:</b>	<b>FIRESTONE SBS torch, SBS FR torch, SBS Premium FR torch</b>
<b>DECK:</b>	<b>Steel</b>
<b>CONSTRUCTION:</b>	<b>New, re-roof</b>

See pages 126 - 128 fastener density patterns

<b>Rating</b>	<b>Deck</b>	<b>Roofing Assembly</b>	<b>Construction No.</b>
1-90	steel (new, re-roof)	Insulation: Mechanically attached with AP / HD fastener/plates at 1 per 4 sq. ft. a) min 2.2" ISO 95+ GL Base Sheet: MB Base SA, self adhered to ISO Membrane: SBS torch, SBS FR torch, SBS, SBS Premium FR torch Fire rating: a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1:12 SBS FR torch, SBS Premium FR torch (no coating required)	Construction number pending

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

Rating	Deck	Roofing Assembly	Construction No.
1-165	steel (new, re-roof)	Insulation: Mechanically attached with AP / HD fastener/plates at 1 per 1.33 sq. ft. b) min 2.2" ISO 95+ GL Base Sheet: MB Base SA, self adhered to ISO Membrane: SBS torch, SBS FR torch, SBS, SBS Premium FR torch Fire rating: a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1:12 SBS FR torch, SBS Premium FR torch (no coating required)	Construction number pending

**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** MB Base SA  
**MEMBRANE:** FIRESTONE SBS torch, SBS FR torch, SBS Premium FR torch  
**DECK:** Steel  
**CONSTRUCTION:** New, re-roof

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-165	steel new, (re-roof)	Insulation: min 1.5" ISO 95+ GL, loose laid Cover Board: mechanically attached with AP / HD fastener/plates at 1 per 1.33 sq. ft. a) min. ½" Dens-Deck Prime Base Sheet: MB Base SA, self adhered to Dens-Deck Prime Membrane: SBS torch, SBS FR torch, SBS, SBS Premium FR torch Fire rating: a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1:12 SBS FR torch, SBS Premium FR torch (no coating required)	Construction number pending

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** MB Base SA  
**MEMBRANE:** FIRESTONE SBS torch, SBS FR torch, SBS Premium FR torch  
**DECK:** Concrete  
**CONSTRUCTION:** New, re-roof

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-90	Concrete (new, re-roof)	Insulation: Mechanically attached with Concrete Drive/ HD fastener/plates at 1 per 4 sq. ft. a) min 1.5" ISO 95+ GL Base Sheet: MB Base SA, self adhered to ISO Membrane: SBS torch, SBS FR torch, SBS, SBS Premium FR torch Fire rating: a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1:12 SBS FR torch, SBS Premium FR torch (no coating required)	Construction number pending

Rating	Deck	Roofing Assembly	Construction No.
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"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

1-90	Concrete (new, re-roof)	<b>Insulation:</b> Mechanically attached with Concrete Drive/ HD fastener/plates at 1 per 2.67 sq. ft. a) min 1.5" ISO 95+ GL <b>Base Sheet:</b> MB Base SA, self adhered to ISO <b>Membrane:</b> SBS torch, SBS FR torch, SBS, SBS Premium FR torch <b>Fire rating:</b> a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1:12 SBS FR torch, SBS Premium FR torch (no coating required)	Construction number pending
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**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** MB Base SA  
**MEMBRANE:** FIRESTONE SBS torch, SBS FR torch, SBS Premium FR torch  
**DECK:** Concrete  
**CONSTRUCTION:** New, re-roof

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-165	Concrete (new, re-roof)	<b>Insulation:</b> Mechanically attached with Concrete Drive/ HD fastener/plates at 1 per 1.33 sq. ft. a) min 1.5" ISO 95+ GL <b>Base Sheet:</b> MB Base SA, self adhered to ISO <b>Membrane:</b> SBS torch, SBS FR torch, SBS, SBS Premium FR torch <b>Fire rating:</b> a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1:12 SBS FR torch, SBS Premium FR torch (no coating required)	Construction number pending

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** MB Base SA  
**MEMBRANE:** FIRESTONE SBS torch, SBS FR torch, SBS Premium FR torch  
**DECK:** Concrete  
**CONSTRUCTION:** New, re-roof

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-165	Concrete (new, re-roof)	Insulation: min 1.5” ISO 95+ GL, loose laid Cover Board: mechanically attached with Concrete Drive/ HD fastener/plates at 1 per 1.33 sq. ft. a) min. ½” Dens-Deck Prime Base Sheet: MB Base SA, self adhered to Dens-Deck Prime Membrane: SBS torch, SBS FR torch, SBS, SBS Premium FR torch Fire rating: a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1:12 SBS FR torch, SBS Premium FR torch (no coating required)	Construction number pending

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

<b>Rating</b>	<b>Deck</b>	<b>Roofing Assembly</b>	<b>Construction No.</b>
1-180	Concrete (new, re-roof)	Insulation: min 1.5" ISO 95+ GL, set in ¾" beads of I.S.O. Fix adhesive 12" o.c. on primed concrete deck Base Sheet: MB Base SA, self adhered to ISO Membrane: SBS torch, SBS FR torch, SBS, SBS Premium FR torch Fire rating: a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1:12 SBS FR torch, SBS Premium FR torch (no coating required)	Construction number pending

**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** MB Base SA  
**MEMBRANE:** FIRESTONE SBS torch, SBS FR torch, SBS Premium FR torch  
**DECK:** Concrete  
**CONSTRUCTION:** New, re-roof

See pages 126 - 128 fastener density patterns

<b>Rating</b>	<b>Deck</b>	<b>Roofing Assembly</b>	<b>Construction No.</b>
1-225	Concrete (new, re-roof)	Insulation: (opt) min 1.5" ISO 95+ GL, set in ¾" beads of I.S.O. Fix adhesive 12" o.c. on primed concrete deck Insulation: Tapered ISO 95+ GL, set in ¾" beads of I.S.O. Fix adhesive 12" o.c. Base Sheet: MB Base SA, self adhered to ISO Membrane: SBS torch, SBS FR torch, SBS, SBS Premium FR torch Fire rating: a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1:12 SBS FR torch, SBS Premium FR torch (no coating required)	Construction number pending

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

**SYSTEM:** MB Base SA  
**MEMBRANE:** FIRESTONE SBS torch, SBS FR torch, SBS Premium FR torch  
**DECK:** Concrete  
**CONSTRUCTION:** New, re-roof

Rating	Deck	Roofing Assembly	Construction No.
1-270	Concrete (new, re-roof)	Base Sheet: MB Base SA, self adhered primed concrete deck Membrane: SBS torch, SBS FR torch, SBS, SBS Premium FR torch Fire rating: a) 1C @ 5:12 no coating required b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq. c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt d) 1A @ 1:12 SBS FR torch, SBS Premium FR torch (no coating required)	Construction number pending

Rating	Deck	Roofing Assembly	Construction No.
1-165	Concrete (new, re-roof)	Deck: unprimed or asphaltic vapor barrier Insulation: min 1.5" ISO 95+ GL, set in 1/2" to 3/4" beads 12" oc of I.S.O. Twin pack Cover Board: (optional), set in 1/2" to 3/4" beads 12" oc of I.S.O. Twin pack a) min. 1/2" Dens-Deck Prime Base Sheet: MB Base SA, self adhered to Dens-Deck Prime Membrane: SBS torch, SBS FR torch, SBS, SBS Premium FR torch	Construction number pending

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

		<p>Fire rating:</p> <ul style="list-style-type: none"> <li>a) 1C @ 5:12 no coating required</li> <li>b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq.</li> <li>c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt</li> <li>d) 1A @ 1:12 SBS FR torch, SBS Premium FR torch (no coating required)</li> </ul>	
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**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** MB Base SA  
**MEMBRANE:** FIRESTONE APP 160, APP 170, APP 180, APP 180 FR, APP Premium FR  
**DECK:** Steel  
**CONSTRUCTION:** New, re-roof

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-90	steel (new, re-roof)	<p>Insulation: Mechanically attached with AP / HD fastener/plates at 1 per 4 sq. ft.                      c) min 2.2" ISO 95+ GL</p> <p>Base Sheet: MB Base SA, self adhered to ISO</p> <p>Membrane: APP 160, APP 170, APP 180 APP 180 FR, APP Premium FR, heat fused</p> <p>Fire rating:</p> <ul style="list-style-type: none"> <li>a) 1C @ ½:12 with no coating</li> <li>b) 1A @ 1/2:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq</li> <li>c) 1A @ 2:12 with 400 lbs/sq. of roofing gravel set in hot asphalt</li> <li>d) 1A @ 1-1/2:12 APP 180 FR (no coating required)</li> <li>e) 1A @ ¾:12 APP Premium FR (no coating)</li> </ul>	Construction number pending

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

		required)	
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Rating	Deck	Roofing Assembly	Construction No.
1-165	steel (new, re-roof)	Insulation: Mechanically attached with AP / HD fastener/plates at 1 per 1.33 sq. ft. a) min 2.2" ISO 95+ GL Base Sheet: MB Base SA, self adhered to ISO Membrane: APP 160, APP 170, APP 180 APP 180 FR, APP Premium FR, heat fused Fire rating: a) 1C @ ½:12 with no coating b) 1A @ 1/2:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq c) 1A @ 2:12 with 400 lbs/sq. of roofing gravel set in hot asphalt d) 1A @ 1-1/2:12 APP 180 FR (no coating required) e) 1A @ ¾:12 APP Premium FR (no coating required)	Construction number pending

**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** MB Base SA  
**MEMBRANE:** FIRESTONE APP 160, APP 170, APP 180, APP 180 FR, APP Premium FR  
**DECK:** Steel  
**CONSTRUCTION:** New, re-roof

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-165	steel (new, re-roof)	Insulation: min 1.5" ISO 95+ GL, loose laid Cover Board: mechanically attached with AP / HD fastener/plates at 1 per 1.33 sq. ft. a) min. ½" Dens-Deck Prime Base Sheet: MB Base SA, self adhered to ISO Membrane: APP 160, APP 170, APP 180 APP 180 FR, APP Premium FR, heat fused Fire rating: a) 1C @ ½:12 with no coating b) 1A @ 1/2:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq c) 1A @ 2:12 with 400 lbs/sq. of roofing gravel set in hot asphalt d) 1A @ 1-1/2:12 APP 180 FR (no coating	Construction number pending

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

		required) e) 1A @ ¾:12 APP Premium FR (no coating required)	
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**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** MB Base SA  
**MEMBRANE:** FIRESTONE APP 160, APP 170, APP 180, APP 180 FR, APP Premium FR  
**DECK:** Concrete  
**CONSTRUCTION:** New, re-roof

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-90	concrete (new, re-roof)	Insulation: Mechanically attached with Concrete Drive/ HD fastener/plates at 1 per 4 sq. ft. a) min 2.0" ISO 95+ GL Base Sheet: MB Base SA, self adhered to ISO Membrane: APP 160, APP 170, APP 180 APP 180 FR, APP Premium FR, heat fused Fire rating: a) 1C @ ½:12 with no coating b) 1A @ 1/2:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq c) 1A @ 2:12 with 400 lbs/sq. of roofing gravel set in hot asphalt d) 1A @ 1-1/2:12 APP 180 FR (no coating required) e) 1A @ ¾:12 APP Premium FR (no coating	Construction number pending

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

Rating	Deck	Roofing Assembly	Construction No.
1-90	concrete (new, re-roof)	Insulation: Mechanically attached with Concrete Drive/ HD fastener/plates at 1 per 2.67 sq. ft. a) min 1.5" ISO 95+ GL Base Sheet: MB Base SA, self adhered to ISO Membrane: APP 160, APP 170, APP 180 APP 180 FR, APP Premium FR, heat fused Fire rating: a) 1C @ ½:12 with no coating b) 1A @ 1/2:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq c) 1A @ 2:12 with 400 lbs/sq. of roofing gravel set in hot asphalt d) 1A @ 1-1/2:12 APP 180 FR (no coating required) e) 1A @ ¾:12 APP Premium FR (no coating required)	Construction number pending

**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** MB Base SA  
**MEMBRANE:** FIRESTONE APP 160, APP 170, APP 180, APP 180 FR, APP Premium FR  
**DECK:** Concrete  
**CONSTRUCTION:** New, re-roof

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-165	concrete (new, re-roof)	Insulation: Mechanically attached with Concrete Drive/ HD fastener/plates at 1 per 1.33 sq. ft. a) min 1.5" ISO 95+ GL Base Sheet: MB Base SA, self adhered to ISO Membrane: APP 160, APP 170, APP 180 APP 180 FR, APP Premium FR, heat fused Fire rating: a) 1C @ ½:12 with no coating b) 1A @ 1/2:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq c) 1A @ 2:12 with 400 lbs/sq. of roofing gravel set in hot asphalt d) 1A @ 1-1/2:12 APP 180 FR (no coating	Construction number pending

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

		required) e) 1A @ ¾:12 APP Premium FR (no coating required)	
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<b>Rating</b>	<b>Deck</b>	<b>Roofing Assembly</b>	<b>Construction No.</b>
1-165	concrete (new, re-roof)	Insulation: min 1.5" ISO 95+ GL, loose laid Cover Board: mechanically attached with Concrete Drive/ HD fastener/plates at 1 per 1.33 sq. ft. a) min. ½" Dens-Deck Prime Base Sheet: MB Base SA, self adhered to ISO Membrane: APP 160, APP 170, APP 180 APP 180 FR, APP Premium FR, heat fused Fire rating: a) 1C @ ½:12 with no coating b) 1A @ 1/2:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq c) 1A @ 2:12 with 400 lbs/sq. of roofing gravel set in hot asphalt d) 1A @ 1-1/2:12 APP 180 FR (no coating required) e) 1A @ ¾:12 APP Premium FR (no coating required)	Construction number pending

**SYSTEM:** MB Base SA  
**MEMBRANE:** FIRESTONE APP 160, APP 170, APP 180, APP 180 FR, APP Premium FR  
**DECK:** Concrete  
**CONSTRUCTION:** New, re-roof

<b>Rating</b>	<b>Deck</b>	<b>Roofing Assembly</b>	<b>Construction No.</b>
1-180	concrete (new, re-roof)	Insulation: min 1.5" ISO 95+ GL, set in ¾" beads of I.S.O. Fix adhesive 12" o.c. on primed concrete deck Base Sheet: MB Base SA, self adhered to ISO Membrane: APP 160, APP 170, APP 180 APP 180 FR, APP Premium FR, heat fused Fire rating: a) 1C @ ½:12 with no coating b) 1A @ 1/2:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq c) 1A @ 2:12 with 400 lbs/sq. of roofing gravel set in hot asphalt d) 1A @ 1-1/2:12 APP 180 FR (no coating required) e) 1A @ ¾:12 APP Premium FR (no coating required)	Construction number pending

<b>Rating</b>	<b>Deck</b>	<b>Roofing Assembly</b>	<b>Construction No.</b>
1-225	concrete (new, re-	Insulation: (opt) min 1.5" ISO 95+ GL, set in ¾" beads of I.S.O. Fix adhesive 12" o.c. on primed concrete deck	Construction number pending

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

roof)		<p><b>Insulation:</b> Tapered ISO 95+ GL, set in ¾” beads of I.S.O. Fix adhesive 12” o.c.</p> <p><b>Base Sheet:</b> MB Base SA, self adhered to ISO</p> <p><b>Membrane:</b> APP 160, APP 170, APP 180 APP 180 FR, APP Premium FR, heat fused</p> <p><b>Fire rating:</b></p> <ul style="list-style-type: none"> <li>a) 1C @ ½:12 with no coating</li> <li>b) 1A @ 1/2:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq</li> <li>c) 1A @ 2:12 with 400 lbs/sq. of roofing gravel set in hot asphalt</li> <li>d) 1A @ 1-1/2:12 APP 180 FR (no coating required)</li> <li>e) 1A @ ¾:12 APP Premium FR (no coating required)</li> </ul>	
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**SYSTEM:** MB Base SA  
**MEMBRANE:** FIRESTONE APP 160, APP 170, APP 180, APP 180 FR, APP Premium FR  
**DECK:** Concrete  
**CONSTRUCTION:** New, re-roof

Rating	Deck	Roofing Assembly	Construction No.
1-270	concrete (new), re-roof)	<p><b>Base Sheet:</b> MB Base SA, self adhered primed concrete deck</p> <p><b>Membrane:</b> APP 160, APP 170, APP 180 APP 180 FR, APP Premium FR, heat fused</p> <p><b>Fire rating:</b></p> <ul style="list-style-type: none"> <li>a) 1C @ ½:12 with no coating</li> <li>b) 1A @ 1/2:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq</li> <li>c) 1A @ 2:12 with 400 lbs/sq. of roofing gravel set in hot asphalt</li> <li>d) 1A @ 1-1/2:12 APP 180 FR (no coating required)</li> <li>e) 1A @ ¾:12 APP Premium FR (no coating required)</li> </ul>	Construction number pending

Rating	Deck	Roofing Assembly	Construction No.
1-165	concrete (new, re-roof)	<p><b>Deck:</b> unprimed or asphaltic vapor barrier</p> <p><b>Insulation:</b> min 1.5” ISO 95+ GL, set in ½” to ¾” beads 12” oc of I.S.O. Twin pack</p> <p><b>Cover Board:</b> (optional) , set in ½” to ¾” beads 12” oc of I.S.O.</p>	Construction number pending

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

		<p>Twin pack</p> <p>Base Sheet: a) min. 1/2" Dens-Deck Prime</p> <p>Membrane: MB Base SA, self adhered to ISO</p> <p>APP 160, APP 170, APP 180 APP 180 FR, APP Premium FR, heat fused</p> <p>Fire rating:</p> <p>a) 1C @ 1/2:12 with no coating</p> <p>b) 1A @ 1/2:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq</p> <p>c) 1A @ 2:12 with 400 lbs/sq. of roofing gravel set in hot asphalt</p> <p>d) 1A @ 1-1/2:12 APP 180 FR (no coating required)</p> <p>e) 1A @ 3/4:12 APP Premium FR (no coating required)</p>	
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**SYSTEM:** MB Base SA  
**MEMBRANE:** FIRESTONE SBS torch, SBS FR torch, SBS Premium FR torch  
**DECK:** Concrete (recover)  
**CONSTRUCTION:** Existing

Rating	Deck	Roofing Assembly	Construction No.
Max. 1-180	Concrete (recover)	<p>Insulation: min 1.5" ISO 95+ GL, set in 3/4" beads of I.S.O. Fix adhesive 12" o.c. over properly prepared smooth BUR</p> <p>Base Sheet: MB Base SA, self adhered to ISO</p> <p>Membrane: SBS torch, SBS FR torch, SBS, SBS Premium FR torch</p> <p>Fire rating:</p> <p>a) 1C @ 5:12 no coating required</p> <p>b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq.</p> <p>c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt</p> <p>d) 1A @ 1:12 SBS FR torch, SBS Premium FR torch (no coating required)</p>	Construction number pending

Rating	Deck	Roofing Assembly	Construction No.
Max. 1-225	Concrete (recover)	<p>Insulation: (opt) min 1.5" ISO 95+ GL, set in 3/4" beads of I.S.O. Fix adhesive 12" o.c. over properly prepared smooth BUR</p> <p>Insulation: Tapered ISO 95+ GL, set in 3/4" beads of I.S.O. Fix adhesive 12" o.c.</p>	Construction number pending

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

		<p>Base Sheet: MB Base SA, self adhered to ISO</p> <p>Membrane: SBS torch, SBS FR torch, SBS, SBS Premium FR torch</p> <p>Fire rating:</p> <ul style="list-style-type: none"> <li>a) 1C @ 5:12 no coating required</li> <li>b) 1A @ 1:12 with Firestone Fiber Aluminum Roof Coating @ 1-1/2 gal/sq.</li> <li>c) 1A @ 1-1/2:12 with 400 lbs/sq Roofing Gravel set in hot asphalt</li> <li>d) 1A @ 1:12 SBS FR torch, SBS Premium FR torch (no coating required)</li> </ul>	
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**SYSTEM:** MB Base SA  
**MEMBRANE:** FIRESTONE APP 160, APP 170, APP 180, APP 180 FR, APP Premium FR  
**DECK:** Concrete (recover)  
**CONSTRUCTION:** Existing

Rating	Deck	Roofing Assembly	Construction No.
Max. 1-180	concrete (recover)	<p>Insulation: min 1.5" ISO 95+ GL, set in 3/4" beads of I.S.O. Fix adhesive 12" o.c. over properly prepared smooth BUR</p> <p>Base Sheet: MB Base SA, self adhered to ISO</p> <p>Membrane: APP 160, APP 170, APP 180 APP 180 FR, APP Premium FR, heat fused</p> <p>Fire rating:</p> <ul style="list-style-type: none"> <li>a) 1C @ 1/2:12 with no coating</li> <li>b) 1A @ 1/2:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq</li> <li>c) 1A @ 2:12 with 400 lbs/sq. of roofing gravel set in hot asphalt</li> <li>d) 1A @ 1-1/2:12 APP 180 FR (no coating required)</li> <li>e) 1A @ 3/4:12 APP Premium FR (no coating required)</li> </ul>	Construction number pending

Rating	Deck	Roofing Assembly	Construction No.
Max. 1-225	concrete (recover)	<p>Insulation: (opt) min 1.5" ISO 95+ GL, set in 3/4" beads of I.S.O. Fix adhesive 12" o.c. over properly prepared smooth</p>	Construction number pending

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

		<p>Insulation: BUR Tapered ISO 95+ GL, set in ¾" beads of I.S.O. Fix adhesive 12" o.c.</p> <p>Base Sheet: MB Base SA, self adhered to ISO</p> <p>Membrane: APP 160, APP 170, APP 180 APP 180 FR, APP Premium FR, heat fused</p> <p>Fire rating:</p> <ul style="list-style-type: none"> <li>a) 1C @ ½:12 with no coating</li> <li>b) 1A @ 1/2:12 with Firestone Fibered Aluminum Roof Coating @ 1-1/2 gal/sq or Karnak 169 @ 1-1/2 gal/sq</li> <li>c) 1A @ 2:12 with 400 lbs/sq. of roofing gravel set in hot asphalt</li> <li>d) 1A @ 1-1/2:12 APP 180 FR (no coating required)</li> <li>e) 1A @ ¾:12 APP Premium FR (no coating required)</li> </ul>	
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**NOTE:**

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** BUR\*  
**DECK:** Steel, Concrete  
**CONSTRUCTION:** New

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-90	Steel (new – min. "C"), Concrete (new), Concrete (recover)	<p>Insulation: mechanically attached</p> <ul style="list-style-type: none"> <li>a) Firestone ISO 95+ Composite, min. 1.5"</li> <li>b) AC Foam Composite, min. 1.5"</li> <li>c) Hy-Therm Composite, min. 1.5"</li> </ul> <p>Attachment: Firestone AP or HD fastener/plates at a rate of 1 per 2 sq. ft.</p> <p>Coverboard: mopped</p> <ul style="list-style-type: none"> <li>a) Firestone FiberTop C, E, S, min. ½"</li> <li>b) Any FM Approved perlite, min. ¾"</li> </ul> <p>Ply Sheet: 3 plies, mopped, any combination</p> <ul style="list-style-type: none"> <li>a) Firestone MB Base Sheet</li> <li>b) Firestone Type IV (4) M, Type VI (6) M</li> </ul> <p>Surfacing;</p> <ul style="list-style-type: none"> <li>a) Firestone Fibered Aluminum Roof Coating at 1-1/2 gal/sq (requires glaze coat over top ply)</li> <li>b) 400 lb/sq of roofing ravel set in hot asphalt</li> </ul> <p>Fire Rating:</p> <ul style="list-style-type: none"> <li>a) 1A @ 3:12 - 400 lb/sq of roofing ravel set in hot</li> </ul>	BUR Construction #1

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."











		1/2 gal/sq (requires glaze coat over top ply) d) 400 lb/sq of roofing ravel set in hot asphalt <b>Fire Rating:</b> a) 1A @ 3:12 - 400 lb/sq of roofing ravel set in hot asphalt b) 1A @ 1:12 - Firestone Fibered Aluminum Roof Coating at 1-1/2 gal/sq	
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\* Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. 1/4" Georgia-Pacific "Dens-Deck" is placed directly on the Wood Deck under the insulation.

#### NOTE:

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners. For 1-90 and above must meet the pressures state in Table 1 of LPDS 1-29 (2006) Example: field – 90 psf, perimeters – 150 psf, corners – 225 psf. Perimeter / corners are determined as 10% of the buildings lesser plan dimension or 40 % of the roof height, whichever is least, but not less than 3 feet.

**SYSTEM:** BUR\*  
**DECK:** Steel (new)  
**CONSTRUCTION:** New

See pages 126 - 128 fastener density patterns

Rating	Deck	Roofing Assembly	Construction No.
1-150	Steel (new – min "C"), attached 6" oc to joist 6" oc with Tek 5	Insulation: mechanically attached a) Firestone ISO 95+ GL, min. 2.2" Attachment: Firestone AP or HD fastener/plates at a rate of 1 per 1.6 sq. ft. Coverboard: mopped (max. 4 x 4) b) Firestone FiberTop C, E, S, min. 1/2" Ply Sheet: max. 4 plies, mopped, any combination b) Firestone MB Base Sheet c) Firestone Type IV (4) M, Type VI (6) M Surfacing;	BUR Construction # pending tested 2-04

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."



		<p>Surfacing;</p> <ul style="list-style-type: none"> <li>c) Firestone Fibered Aluminum Roof Coating at 1-1/2 gal/sq (requires glaze coat over top ply)</li> <li>d) 400 lb/sq of roofing ravel set in hot asphalt</li> </ul> <p>Fire Rating:</p> <ul style="list-style-type: none"> <li>a) 1A @ 3:12 - 400 lb/sq of roofing ravel set in hot asphalt</li> <li>b) 1A @ 1:12 - Firestone Fibered Aluminum Roof Coating at 1-1/2 gal/sq</li> </ul>	
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\* Exterior fire rating can be maintained over FM Approved Wood Decks (up to and including a maximum slope of 2:12) when min. ¼” Georgia-Pacific “Dens-Deck” is placed directly on the Wood Deck under the insulation.

**SYSTEM:** BUR  
**DECK:** Concrete (new), concrete (re-roof)  
**CONSTRUCTION:** New

Rating	Deck	Roofing Assembly	Construction No.
1-180	Concrete (new), Concrete (re-roof)	<p>Insulation: mopped, primed or unprimed</p> <ul style="list-style-type: none"> <li>b) Firestone ISO 95+ GL, min. 1.5”</li> <li>c) AC Foam II, min. 1.5”</li> <li>d) Hy-Therm AP, min. 1.5”</li> </ul> <p>Coverboard: mopped (max. 4 x 4)</p> <ul style="list-style-type: none"> <li>a) Firestone FiberTop C, E, S, min. ½”</li> <li>b) Any FM approve perlite, min ¾”</li> </ul> <p>Ply Sheet: max. 4 plies, mopped, any combination</p> <ul style="list-style-type: none"> <li>b) Firestone MB Base Sheet</li> <li>c) Firestone Type IV (4) M, Type VI (6) M</li> </ul> <p>Surfacing;</p> <ul style="list-style-type: none"> <li>a) Firestone Fibered Aluminum Roof Coating at 1-1/2 gal/sq (requires glaze coat over top ply)</li> <li>b) 400 lb/sq of roofing ravel set in hot asphalt</li> </ul> <p>Fire Rating:</p> <ul style="list-style-type: none"> <li>a) 1A @ 3:12 - 400 lb/sq of roofing ravel set in hot</li> </ul>	BUR Construction #3

“The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes.”

		asphalt b) 1A @ 1:12 - Firestone Fibered Aluminum Roof Coating at 1-1/2 gal/sq	
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**SYSTEM:** BUR  
**DECK:** Concrete (new), concrete (re-roof)  
**CONSTRUCTION:** New

Rating	Deck	Roofing Assembly	Construction No.
1-180	Concrete (new), Concrete (re-roof)	Ply Sheet: max. 4 plies, mopped, any combination b) Firestone MB Base Sheet c) Firestone Type IV (4) M, Type VI (6) M Surfacing; a) Firestone Fibered Aluminum Roof Coating at 1-1/2 gal/sq (requires glaze coat over top ply) b) 400 lb/sq of roofing ravel set in hot asphalt Fire Rating: a) 1A @ 3:12 - 400 lb/sq of roofing ravel set in hot asphalt b) 1A @ 1:12 - Firestone Fibered Aluminum Roof Coating at 1-1/2 gal/sq	BUR Construction #4

**SYSTEM:** BUR  
**DECK:** Concrete (new), concrete (re-roof)  
**CONSTRUCTION:** New

Rating	Deck	Roofing Assembly	Construction No.
1-525	Concrete (new), Concrete (re-roof)	Insulation: mopped, primed or unprimed a) Firestone ISO 95+ GL, min. 1.5" Insulation: (optional) ¼:12 tapered with ½" start, mopped a) Firestone ISO 95+ GL Coverboard: mopped (max. 4 x 4) b) Dens-Deck, min ¼" Ply Sheet: max. 4 plies, mopped, any combination b) Firestone MB Base Sheet c) Firestone Type IV (4) M, Type VI (6) M Surfacing; a) Firestone Fibered Aluminum Roof Coating at 1-1/2 gal/sq (requires glaze coat over top ply) b) 400 lb/sq of roofing ravel set in hot asphalt Fire Rating: a) 1A @ 3:12 - 400 lb/sq of roofing ravel set in hot	BUR Construction #10

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

		asphalt b) 1A @ 1:12 - Firestone Fibered Aluminum Roof Coating at 1-1/2 gal/sq	
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**NOTE:**

*Base sheet attachment to be increased by 70% in the perimeters and 160% in the corners. Perimeters /corners are defined as 10% of the lesser plan dimension or 40% of the eave (roof) height, whichever is least, but no less than 3 feet.*

**SYSTEM:** BUR  
**DECK:** Lightweight Insulating Concrete  
**CONSTRUCTION:** New

See pages 129 fastener density requirements

Rating	Deck	Roofing Assembly	Construction No.
1-90	Celcore (min. 36#) Max. 5' joist spacing	Base Sheet: a) Firestone MB Base Sheet M b) Firestone Venting Base Sheet Base Sheet Attachment: a) Firestone LWC Base Ply Fastener and Plate, 7" oc in the side lap and 7" oc in two rows equally spaced and staggered in the field of the base sheet	LtWT Construction #5

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

		Ply Sheet: three or four layers, mopped, any combination a) Firestone Type IV (4) M, Type VI (6) M Surfacing: a) Firestone Fibered Aluminum Roof Coating at 1-1/2 gal/sq (requires glaze coat over top ply) b) 400 lb/sq of roofing ravel set in hot asphalt Fire Rating: a) 1A @ 3:12 - 400 lb/sq of roofing ravel set in hot asphalt b) 1A @ 1:12 - Firestone Fibered Aluminum Roof Coating at 1-1/2 gal/sq	
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**NOTE:**

*Base sheet attachment to be increased by 70% in the perimeters and 160% in the corners. Perimeters /corners are defined as 10% of the lesser plan dimension or 40% of the eave (roof) height, whichever is least, but no less than 3 feet.*

<b>SYSTEM:</b>	<b>BUR</b>
<b>DECK:</b>	<b>Lightweight Insulating Concrete</b>
<b>CONSTRUCTION:</b>	<b>New</b>

See pages 129 fastener density requirements

Rating	Deck	Roofing Assembly	Construction No.
1-150	Celcore (min. 42#) Max. 5' joist spacing	Base Sheet: a) Firestone MB Base Sheet M b) Firestone Venting Base Sheet Base Sheet Attachment:	LtWT Construction # pending

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		<p>a) Firestone LWC Base Ply Fastener and Plate, 7" oc in the side lap and 7" oc in two rows equally spaced and staggered in the field of the base sheet</p> <p>Ply Sheet: three or four layers, mopped, any combination</p> <p>a) Firestone Type IV (4) M, Type VI (6) M</p> <p>Surfacing:</p> <p>a) Firestone Fibered Aluminum Roof Coating at 1-1/2 gal/sq (requires glaze coat over top ply)</p> <p>b) 400 lb/sq of roofing ravel set in hot asphalt</p> <p>Fire Rating:</p> <p>a) 1A @ 3:12 - 400 lb/sq of roofing ravel set in hot asphalt</p> <p>b) 1A @ 1:12 - Firestone Fibered Aluminum Roof Coating at 1-1/2 gal/sq</p>	
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**NOTE:**

*Base sheet attachment to be increased by 70% in the perimeters and 160% in the corners. Perimeters /corners are defined as 10% of the lesser plan dimension or 40% of the eave (roof) height, whichever is least, but no less than 3 feet.*

**SYSTEM:** **BUR**  
**DECK:** **Lightweight Insulating Concrete**  
**CONSTRUCTION:** **New**

See pages 129 fastener density requirements

Rating	Deck	Roofing Assembly	Construction No.
1-90	Mearlcrete (min. 40#)	Base Sheet: a) Firestone MB Base Sheet M	LtWT Construction #15

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

Max. 5' joist spacing	<ul style="list-style-type: none"> <li>b) Firestone Venting Base Sheet</li> <li>Base Sheet Attachment: <ul style="list-style-type: none"> <li>a) Firestone LWC Base Ply Fastener and Plate, 7" oc in the side lap and 7" oc in two rows equally spaced and staggered in the field of the base sheet</li> </ul> </li> <li>Ply Sheet: three or four layers, mopped, any combination <ul style="list-style-type: none"> <li>a) Firestone Type IV (4) M, Type VI (6) M</li> </ul> </li> <li>Surfacing: <ul style="list-style-type: none"> <li>a) Firestone Fibered Aluminum Roof Coating at 1-1/2 gal/sq (requires glaze coat over top ply)</li> <li>b) 400 lb/sq of roofing ravel set in hot asphalt</li> </ul> </li> <li>Fire Rating: <ul style="list-style-type: none"> <li>a) 1A @ 3:12 - 400 lb/sq of roofing ravel set in hot asphalt</li> <li>b) 1A @ 1:12 - Firestone Fibered Aluminum Roof Coating at 1-1/2 gal/sq</li> </ul> </li> </ul>	
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**NOTE:**

*Base sheet attachment to be increased by 70% in the perimeters and 160% in the corners. Perimeters /corners are defined as 10% of the lesser plan dimension or 40% of the eave (roof) height, whichever is least, but no less than 3 feet.*

<b>SYSTEM:</b>	<b>BUR</b>
<b>DECK:</b>	<b>Lightweight Insulating Concrete</b>
<b>CONSTRUCTION:</b>	<b>New</b>

See pages 129 fastener density requirements

Rating	Deck	Roofing Assembly	Construction No.

"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

1-90	Elastizell (min. 45#) Max. 5' joist spacing	<p>Base Sheet:</p> <ul style="list-style-type: none"> <li>a) Firestone MB Base Sheet M</li> <li>b) Firestone Venting Base Sheet</li> </ul> <p>Base Sheet Attachment:</p> <ul style="list-style-type: none"> <li>a) Firestone LWC Base Ply Fastener and Plate, 7" oc in the side lap and 7" oc in two rows equally spaced and staggered in the field of the base sheet</li> </ul> <p>Ply Sheet: three or four layers, mopped, any combination</p> <ul style="list-style-type: none"> <li>a) Firestone Type IV (4) M, Type VI (6) M</li> </ul> <p>Surfacing;</p> <ul style="list-style-type: none"> <li>a) Firestone Fibered Aluminum Roof Coating at 1-1/2 gal/sq (requires glaze coat over top ply)</li> <li>b) 400 lb/sq of roofing ravel set in hot asphalt</li> </ul> <p>Fire Rating:</p> <ul style="list-style-type: none"> <li>a) 1A @ 3:12 - 400 lb/sq of roofing ravel set in hot asphalt</li> <li>b) 1A @ 1:12 - Firestone Fibered Aluminum Roof Coating at 1-1/2 gal/sq</li> </ul>	LtWT Construction #17
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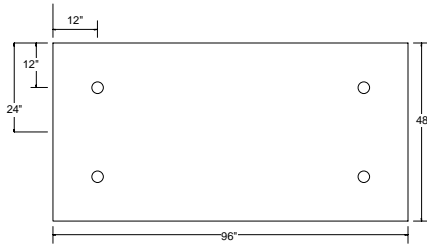
**FASTENER / PLATE DENSITY CHART**  
for 4 x 8 boards

For 1-60 and 1-75 assemblies, insulation fastener density must be increased by 50% but not less than 1 per 2 sq. ft. in the perimeters and 100% but not less than 1 per 1 sq. ft. in the corners.

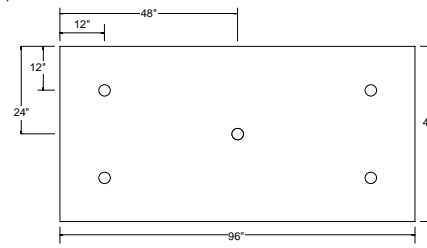
Field	Perimeters	Corners		Field	Perimeters	Corners
8	16	32		18	27	36
10	16	32		20	30	40
12	18	32		24	36	48
16	24	32				

**Fastener Patterns**

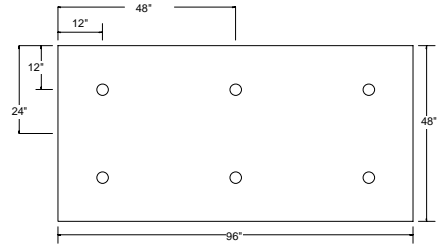
"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."



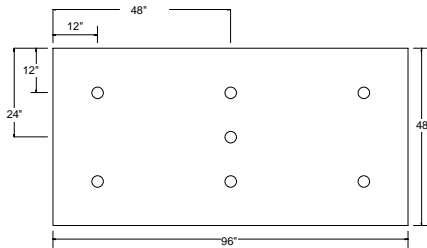
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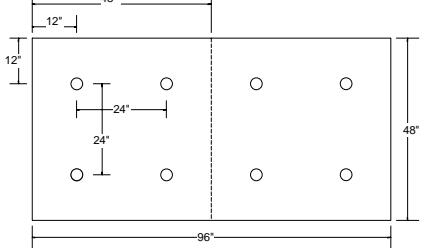
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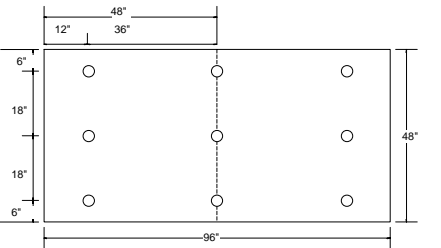
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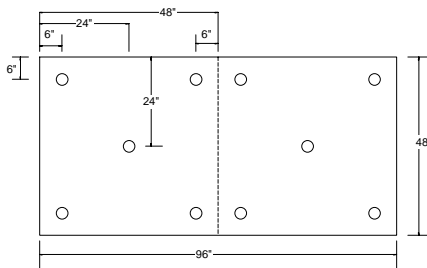
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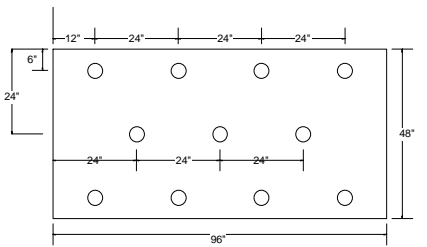
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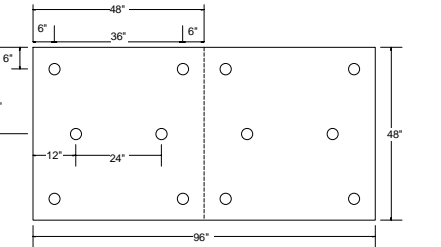
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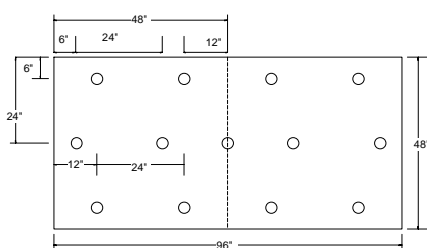


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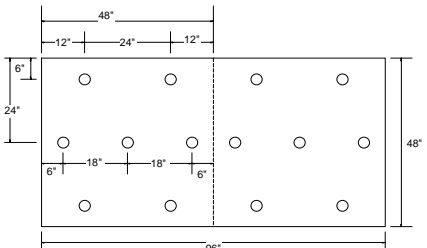


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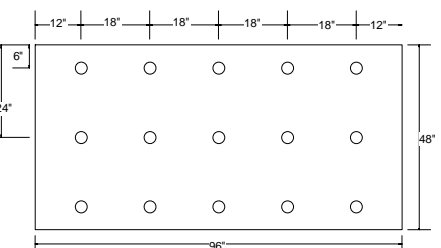
### Fastener Patterns



(13)



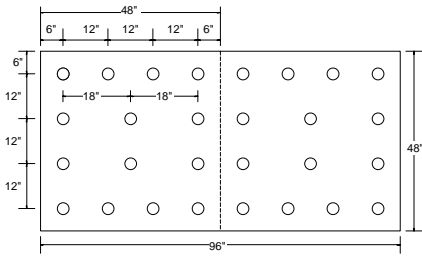
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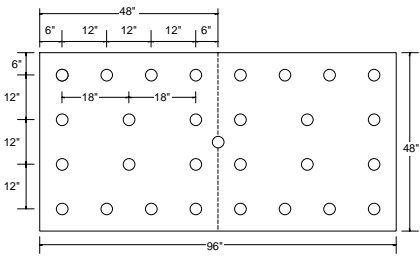
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"The above stated assemblies may not be suitable for a Firestone Red Shield Warranty. Contact Firestone Roofing Solutions Department, prior to installation, for approval of assembly for warranty purposes."

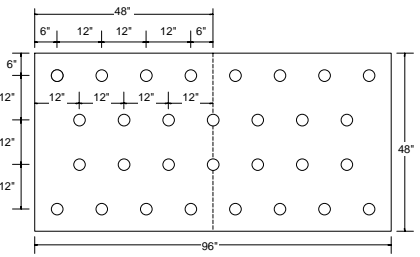




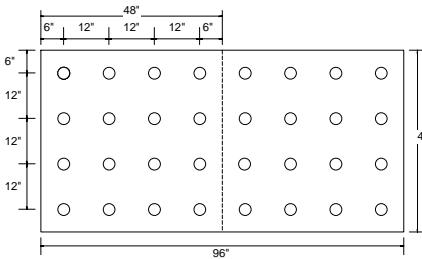
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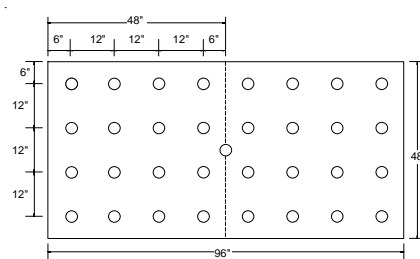
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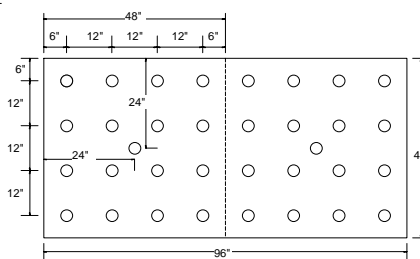
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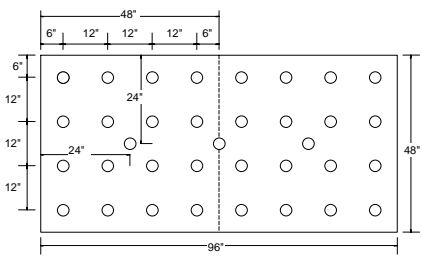
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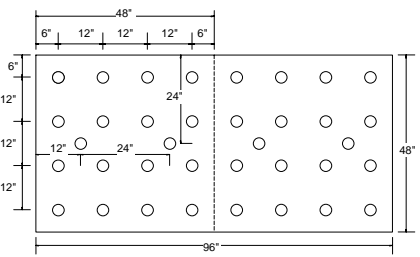
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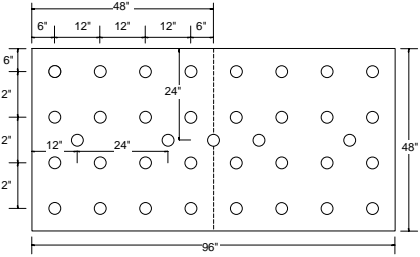
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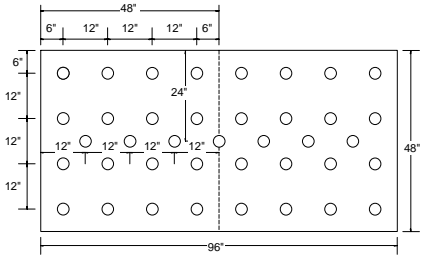
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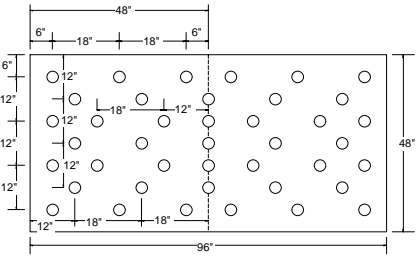
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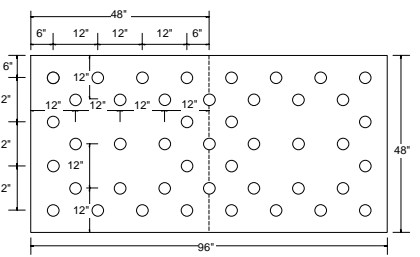
(37)



(39)



(41)



(42)

### Base Sheet Attachment

Field	Perimeters (70% increase)	Corners (160% increase)
7" oc in side laps and 7" oc in 2 rows equally spaced and staggered in the field of the base sheet	4" oc in side laps and 4" oc in 2 rows equally spaced and staggered in the field of the base sheet	4.5" oc in side laps and 4.5" oc in 4 rows equally spaced and staggered in the field of the base sheet
12" oc in side laps and 18" oc in 2 rows equally spaced and staggered in the field of the base sheet	7" oc in side laps and 10.5" oc in 2 rows equally spaced and staggered in the field of the base sheet	4.5" oc in side laps and 6.5" oc in 2 rows equally spaced and staggered in the field of the base sheet

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<b>18"</b> oc in side laps and <b>18"</b> oc <b>in 1 row</b> equally spaced and staggered in the field of the base sheet	<b>10.5"</b> oc in side laps and <b>10.5"</b> oc <b>in 1 row</b> equally spaced and staggered in the field of the base sheet	<b>6.5"</b> oc in side laps and <b>6.5"</b> oc <b>in 1 row</b> equally spaced and staggered in the field of the base sheet
<b>24"</b> oc in side laps and <b>24"</b> oc <b>in 1 row</b> equally spaced and staggered in the field of the base sheet	<b>14"</b> oc in side laps and <b>14"</b> oc <b>in 1 row</b> equally spaced and staggered in the field of the base sheet	<b>9"</b> oc in side laps and <b>9"</b> oc <b>in 2 rows</b> equally spaced and staggered in the field of the base sheet

### NATIONAL, REGIONAL and LOCAL CODES

<b>Code Authority</b>	<b>Evaluation/Approval Report Number</b>	<b>Approved systems</b>
Southern Building Code Congress International (SBCCI)	9415 (APP & SBS)	Adhered
New York City MEA	408-89-M (APP) 365-03-M (SBS)	Adhered Adhered

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Metro-Dade (APP & SBS)	06-0425.07	LtWt
Metro-Dade (APP & SBS)	05-0830.10	Wood
Metro-Dade (APP & SBS)	05-0830.11	Steel
Metro-Dade (APP & SBS)	05-0830.08	Recover
Metro-Dade (APP & SBS)	06-0425.05	Gypsum
Metro-Dade (APP & SBS)	05-0830.12	Concrete
Metro-Dade (APP & SBS)	06-0425.06	CementitiousWood Fiber (Tectum)
Bureau of Home Furnishings & Thermal Insulation (CA)	CA-T243 (IN)	Isocyanurate insulation
BOCA	85-83	Isocyanurate insulation
SBCCI	9309	Isocyanurate insulation
Metro-Dade	03-0123.03	Isocyanurate insulation
Canadian General Standards Board (CGSB)	91-38-M0054A-30012BW (Ortech)	Isocyanurate insulation

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