

Asphalt Roofing Systems

Code Approval Guide



The assemblies in this document must be verified with the associated Firm's (UL, FM, etc.). Not all the information included in the RoofNav assemblies will be listed in the charts below.

# <u>Please verify that all assemblies meet Firestone Building Products warranty</u> <u>requirements with the associated regions technical team.</u>

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#### **Underwriters Laboratories (UL) 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 E-108**. This test standard, and closely related standards such as Underwriters Laboratories **UL-790** and **Uniform Building Code 15-2**, is used to determine the ability of a roof system to hinder the horizontal spread or vertical penetration of an external fire source. In accordance with these standards, 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

#### Noncombustible Roof Decks (NC):

Steel, Concrete, Poured Gypsum – require testing for horizontal spread of flame.

#### Combustible Roof Decks (C):

Wood, Plywood, Tectum – require testing for both horizontal spread and vertical penetration of flame.

## The following information has been referenced from the UL Online Certification Directory document: TGFU.GuideInfo

Certified gypsum wallboard, any thickness, may be included in any roofing system without adversely affecting the certification. Insulations may be attached to the deck with fasteners, hot mopping asphalt or certified adhesive.

Certified insulated systems may be installed over existing certified insulated systems when:

- 1. The new system is certified for use with the existing roof insulation type (glass fiber, perlite, wood fiber, foamed plastic, etc.), and
- 2. The total thickness of insulation in both systems does not exceed the maximum specified for the new system being applied.

#### **Maintenance and Repair Systems**

These roofing systems are composed of various types of roofing applications which are specifically limited for installation (recover) over existing roofing systems as specified. These systems may not meet certification requirements without being used over existing systems. Recovering may also be accomplished with certified new construction roofing systems where compatibility has been determined by test, by empirical data or by known performance properties of similar materials to the test methods. The following guidelines are provided to assist Authorities Having Jurisdiction in determining the suitability of a new construction roofing system as a recover system.

#### **Noncombustible Deck Construction**

- 1. Insulated roof systems may be utilized over any type of existing roof system and maintain its new construction rating when the roof deck is noncombustible.
- 2. Insulated multiple-layered hot mopped, cold application or modified bitumen membrane new construction systems with a base ply of Type G1 or Type G2 may be used over any existing roof system and maintain its new construction rating when the roof deck is noncombustible. The insulation may be omitted from the re-cover system.
- 3. Uninsulated multiple-layered hot mopped, cold application or modified bitumen membrane new construction systems with a base ply of Type G1 or Type G2 may be used over any existing uninsulated roof system and maintain its new construction rating when the roof deck is noncombustible.

#### **Combustible Deck Construction**

- 1. Insulated roof systems certified for use over combustible deck can be used over any type of existing roof system and maintain its new construction rating.
- Insulated roof systems certified for use over noncombustible deck may be used over any type of Class A, B or C existing roof systems. The resultant Class will be the lesser rating of the existing system or the new construction (recover) system.
- Uninsulated multiple-layered hot mopped, cold application or modified bitumen membrane new construction systems
  with a base ply of Type G1 or Type G2 may be used over any existing uninsulated roof system and maintain its new
  construction rating.



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 what the roofing assembly classification will need to be for each roofing project.

It should be noted that these classifications apply to **roofing assemblies**, and **NOT the roofing membrane**. 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.

#### **General Notations**

<u>PLEASE NOTE:</u> Not all UL-rated assemblies that use Firestone roofing products are eligible for the Firestone Red Shield, Red Shield Medallion, or Platinum Warranty. The Firestone standards, guidelines, and specifications regarding roofing system components and attachment for the warranty desired must be followed.

- > If a discrepancy occurs between this guide and UL Certifications, the published information located in the UL Certifications Directory at www.ul.com should be adhered to and utilized.
- Noncombustible roof deck Classifications are applicable for use over combustible (15/32" min. plywood) roof decks when ½" (min.) gypsum board or ¼" (min.) Georgia-Pacific Gypsum LLC DensDeck® Roof Board or DensDeck Prime Roof Board or DensDeck DuraGuard Roof Board are used directly over the deck with all joints staggered 6" (min) from plywood joints.
- The below stated assemblies may not be suitable for a Firestone Warranty. Prior to installation, contact a Firestone Representative for approval of assembly for warranty purposes.
- References to Type G1 and Type G2 ply and base sheets include: Ply IV, Ply VI (Type G1), MB Base (Type G2) in any of the following Classifications. Firestone Channel Venting Base Sheet (Type G3) may be used in lieu of any Type G2 base in any applicable non-combustible Classification. The Firestone Channel Venting Base (mechanically attached only) may be used in all assemblies where the Firestone MB Base is listed on Non-combustible decks.
- SBS Poly Base sheet can be used in any non-combustible deck system which utilizes a Firestone SBS Cap. ISOGARD™ HD, ISOGARD HD Composite, and RESISTA™ are acceptable alternates to ISO 95+™ GL in any applicable Classification.
- ➤ I.S.O. FIX™ II Adhesive may be used in any of the following Classifications to adhere insulation to the roof deck.
- ▶ I.S.O. Spray™ R or Firestone I.S.O.Stick™/Twin Jet, and I.S.O. Twin Pack™ may be used in any of the following Classifications to adhere insulation to both non-combustible roof deck substrates and other insulation layers including wood fiberboard and Georgia-Pacific Gypsum LLC Georgia-Pacific Gypsum LLC DensDeck Roof board or DensDeck Prime Roof Board or DensDeck DuraGuard Roof Board.
- > Tapered ISO 95+ GL may be substituted for ISO 95+ GL in any of the systems listed below. ISO 95+ GL may be perforated on one side for use as the contact side for BUR or modified bitumen membrane.
- SBS Glass is an acceptable alternate to SBS Cap, SBS Smooth, and SBS Premium in all applicable systems.
- SBS Smooth membrane may be used in any noncombustible system utilizing the above SBS membranes as an alternate to Type G1 or G2 base/ply sheets, provided the substitution occurs directly over wood fiber, glass fiber or perlite insulation only. The SBS Smooth membranes may be utilized in more than one layer.
- > SBS Premium Base Sheet may be used in lieu of SBS Base or SBS Base-P sheet in any system incorporating the latter. SBS Poly Torch Base Sheet may be added to any applicable classified system without adversely affecting the existing Classification. It may also be used as a substitute for any base sheet in non-combustible deck roofing systems.
- SBS Base Sheet or SBS Base-P sheet may be used in lieu of MB Base Sheet in all applicable Classifications.
- AcryliTop™ Base Coat for Asphalt (1.5-gal²) and AcryliTop PC-100 (1-gal²) may be used over any of the following modified bitumen membranes: SBS FR Torch, SBS Premium FR, SBS Premium FR Torch, SBS Glass FR, SBS Glass FR Torch, APP 180 FR or APP Premium FR.
- Firestone MB Base, APP 80 Glass Base, APP 80 Glass Base-P, SBS Glass Torch Base, SBS Glass Torch Base 1.5 Square, Malarkey Premium I SBS Modified Base Sheet No. 501 and Intec/Permaglas Ultra Base are acceptable substitutes and may be used in any assembly which utilizes Type G1, Type G2, Johns Manville No. 28 Glass Base, Bird CRS base sheet or GAF-Glass Base Sheets.
- ISOGARD 95+ GL is trademarked.
- The following membranes are equivalent:
  - a) SBS Premium FR, SBS Premium FR Torch, SBS FR Cap
  - b) SBS Cap
  - c) SBS Premium, SBS Premium Torch
  - d) SBS Smooth
  - e) SBS Glass, SBS Glass Torch
  - f) SBS Glass FR, SBS Glass FR Torch



## **General System Variations – V-Force, Alternate Products or Application**

1. NC (See NOTE 1) 1. NC (See NOTE 1) 1. NOTE 1: Classification (A, B or C) and maximum incline will be the same as that for the currently Classified insulated system. EPOM. or TPO system. Insulation may be adhered corner to the currently limited to a non-combustible deck.  1. NOTE 1: Classification (Optional) 1. Firestone ISO 95+ GL.—Any Thickness Barrier Board: 1. NOTE 1: Classification (A, B or C) and maximum incline will be the same as that for the currently Classified insulated system. Roofing System: 1. April Note Note Note Note Note Note Note Note	UL Assembly Number	Deck	Vapor Barrier	Roofing System	Maximum Slope	Class, Type
The content of the co	1.	(See NOTE 1)	V-Force, Self-Adhered	system, EPDM or TPO system. Insulation may be adhered with Firestone I.S.O. Twin Pack, I.S.O.Stick or I.S.O. Spray R	NOTE 1	A/B/C, Mechanically Attached or Fully Adhered
Insulation (Optional)					lassified insu	llated system,
Insulation (Optional):  1B. C - 15/32   C	1A.	C – 15/32	(Optional) V-Force, Self- Adhered	Insulation (Optional): Firestone ISO 95+ GL- Any Thickness Barrier Board: ½" min. DensDeck, DensDeck Prime Roofing System: Any Insulated UL Classified modified bitumen system, BUR system, EPDM, or TPO membrane system. Insulation may be adhered or mechanically attached with Firestone I.S.O. Twin Pack, I.S.O.Stick or I.S.O. Spray R	NOTE 1	A/B/C, Mechanically Attached or Fully Adhered
Insulation (Optional): Firestone ISO 95+ GL- Any Thickness Insulation: 1" min. RESISTA Roofing System: Any Insulated UL Classified modified bitumen system, BUR system, EPDM, or TPO membrane system. Insulation may be adhered or mechanically attached with Firestone I.S.O. Twin Pack, I.S.O. Stick or I.S.O. Spray R  NOTE 1: Classification (A, B or C) and maximum incline will be the same as that for the currently Classified insulated system. Insulation may be adhered or mechanically attached with Firestone I.S.O. Twin Pack, I.S.O. Stick or I.S.O. Spray R  NOTE 1: Classification (A, B or C) and maximum incline will be the same as that for the currently Classified insulated system currently limited to a combustible deck.  1. Vapor Barrier Roofing System Maximum Slope Class, Town Pack, I.S.O. Stick or I.S.O. Spray R Membrane: Any UL Classified, any thickness, adhered with Firestone I.S.O. Twin Pack, I.S.O. Stick or I.S.O. Spray R Membrane: Any UL Classified modified bitumen system, BUR system, EPDM or TPO membrane system suitable for use with any roof insulation.  NOTE 1: Classification (A, B or C) and maximum incline will be the same as that of the Classified Roofing System (TGFU) currently limited to noncombustible deck.  2. (See NOTE 1) None Insulation: Any UL Classified, any thickness, adhered with Firestone I.S.O. Twin Pack, I.S.O. Stick or I.S.O. Spray R Barrier Board: Gypsum wallboard, ½" thick min Georgia-Pacific Gypsum LLC DensDeck Roof board or DensDeck Prime Roof board, ½" min, joints in barrier board offset 6" with joints in deck. Membrane: Membrane:  2. (C - 15/32 None Insulation: Any UL Classified, any thickness, adhered with Firestone I.S.O. Twin Pack, I.S.O. Stick or I.S.O. Spray R Barrier Board: Gypsum wallboard, ½" thick min Georgia-Pacific Gypsum LLC DensDeck Roof board or DensDeck Prime Roof board, ½" min, joints in barrier board offset 6" with joints in deck. Membrane:					lassified insu	ılated system,
Currently limited to a combustible deck.    UL	·	C –	(Optional) V-Force, Self-	Insulation (Optional): Firestone ISO 95+ GL– Any Thickness Insulation: 1" min. RESISTA Roofing System: Any Insulated UL Classified modified bitumen system, BUR system, EPDM, or TPO membrane system. Insulation may be adhered or mechanically attached with Firestone I.S.O. Twin		A/B/C, Mechanically Attached or Fully Adhered
Deck					lassified insu	llated system,
2.	UL Assembly		Vapor			Class, Type
Currently limited to noncombustible deck.    Any UL Classified, any thickness, adhered with Firestone I.S.O. Twin Pack, I.S.O.Stick or I.S.O. Spray R   Barrier Board:     Gypsum wallboard, ½" thick min Georgia-Pacific Gypsum     LLC DensDeck Roof board or DensDeck Prime Roof     board or DensDeck DuraGuard Roof board, ½" min, joints     in barrier board offset 6" with joints in deck.     Membrane:   Membrane:     Membrane:   Membrane:     Any UL Classified, any thickness, adhered with Firestone     I.S.O. Stick or I.S.O. Spray R   Barrier Board:     Gypsum wallboard, ½" thick min Georgia-Pacific Gypsum     LLC DensDeck Roof board or DensDeck Prime Roof     board or DensDeck DuraGuard Roof board, ½" min, joints     in barrier board offset 6" with joints in deck.     Membrane:     Membrane:     Membrane:     C -		(See NOTE 1)		Any UL Classified, any thickness, adhered with Firestone I.S.O. Twin Pack, I.S.O.Stick or I.S.O. Spray R  Membrane:  Any UL Classified modified bitumen system, BUR system, EPDM or TPO membrane system suitable for use with any roof insulation.	NOTE 1	A/B/C, Mechanically Attached or Fully Adhered
Any UL Classified, any thickness, adhered with Firestone I.S.O. Twin Pack, I.S.O.Stick or I.S.O. Spray R  Barrier Board:  Gypsum wallboard, ½" thick min Georgia-Pacific Gypsum LLC DensDeck Roof board or DensDeck Prime Roof board or DensDeck DuraGuard Roof board, ¼" min, joints in barrier board offset 6" with joints in deck.  Membrane:    None   Insulation:   Any UL Classified, any thickness, adhered with Firestone   I.S.O. Spray R   Barrier Board:   Gypsum wallboard, ½" thick min Georgia-Pacific Gypsum   LC DensDeck Roof board or DensDeck Prime Roof   board or DensDeck DuraGuard Roof board, ¼" min, joints   in barrier board offset 6" with joints in deck.   Membrane:					loofing Syste	m (TGFU)
Any UL Classified modified bitumen system, BUR system or CPE, CSM, CSPE, EPDM, NBP, PIB, PVC, TPO or TRE membrane system suitable for use with any roof insulation.	-	C -		Insulation:  Any UL Classified, any thickness, adhered with Firestone I.S.O. Twin Pack, I.S.O.Stick or I.S.O. Spray R  Barrier Board:  Gypsum wallboard, ½" thick min Georgia-Pacific Gypsum LLC DensDeck Roof board or DensDeck Prime Roof board or DensDeck DuraGuard Roof board, ¼" min, joints in barrier board offset 6" with joints in deck.  Membrane:  Any UL Classified modified bitumen system, BUR system or CPE, CSM, CSPE, EPDM, NBP, PIB, PVC, TPO or TRE membrane system suitable for use with any roof		A/B/C, Mechanically Attached or Fully Adhered



#### Asphalt Systems with Surfacing - Class A

UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
1.	NC	Insulation ISO 95+ GL, any thickness, mechanically fastened or adhered with hot mopping asphalt Ply Sheet Two to four layers, Type G1 or Type G2, any combination Surfacing Gravel	3"	Α
2.	NC	Insulation HailGard, mechanically fastened or adhered with hot mopping asphalt, 1½ - 3½" thick Insulation (Optional) Perlite, 1" thick Ply Sheet Three to four layers, Type G1 or Type G2, any combination Surfacing Gravel, slag or crushed stone	3"	Α
3.	NC	Base Sheet  MB Base, mechanically fastened or hot mopped  Insulation (Optional)  Any UL Classified (EPS must be covered with ½" thick min glass fiber, wood fiber or perlite), any thickness, mechanically fastened or hot mopped  Ply Sheet  One or more layers of MB Base or Type G1, any combination  Surfacing  Gravel, crushed stone or crushed slag, in a flood coat of hot roofing asphalt	3"	Α
4.	C – 15/32	Insulation (Optional) Any UL Classified, any thickness Ply Sheet One or more plies Type G1, Type G2 or SBS Base sheet, mechanically fastened or hot mopped, any combination Membrane SBS Smooth, SBS Premium or SBS Cap (modified bitumen), hot mopped Surfacing Gravel, crushed stone or crushed slag, in a flood coat of asphalt	1"	A
5.	NC	Insulation (Optional) Any UL Classified, any thickness Ply Sheet One or more plies Type G1, Type G2 or SBS Base sheet, mechanically fastened or hot mopped, any combination Membrane SBS Smooth, SBS Premium or SBS Cap, hot mopped Surfacing Gravel, crushed stone or crushed slag, in a flood coat of asphalt	1½"	A
6.	NC	Insulation (Optional) ISO 95+ GL or FiberTop B, wood fiberboard, Polyisocyanurate, fiberglass, perlite, any combination, any thickness, mechanically fastened, hot mopped or attached with any UL Classified cold adhesive  Base Sheet (Optional) One or more plies MB Base Sheet, mechanically fastened or hot mopped Ply Sheet One or more plies Ply IV or Ply VI, mechanically fastened or hot mopped Surfacing Gravel, crushed stone or crushed slag in a flood coat of asphalt	3"	A



Asphalt Systems with Surfacing - Class A

	GIII2 M	rith Surfacing – Class A		
UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
7.	C – 15/32	Insulation  ISO 95+ GL, min 2" (or 1½" ISO 95+ GL with min ½" FiberTop "B" or any UL Classified perlite min ½"), min 1" wood fiberboard (includes FiberTop "B") or min 1" perlite, mechanically fastened, hop mopped or attached with any UL Classified cold adhesive  Base Sheet  One or more plies MB Base, mechanically fastened or hot mopped Ply Sheet: Two or more plies Firestone Ply IV or Ply VI, mechanically fastened or hot mopped  Surfacing  Gravel, crushed stone or crushed slag in a flood coat of asphalt	3"	A
8.	C – 15/32	Insulation Firestone ISO 95+ GL or any other UL Classified Polyisocyanurate, any thickness, mechanically fastened Insulation Any UL Classified wood fiberboard, ½" thick, mechanically fastened or adhered with hot mopping asphalt Ply Sheet MB Base, Ply IV, Ply VI or any other UL Classified Type G1 or Type G2, four plies, adhered with hot asphalt Surfacing Gravel, 400 lb²	4"	А
9.	NC	Insulation (Optional)  ISO 95+ GL or any other UL Classified Polyisocyanurate, any thickness, mechanically fastened or adhered with hot mopping asphalt Insulation (Optional required if Polyisocyanurate is used)  Any UL Classified wood fiberboard, ½" thick, mechanically fastened or adhered with hot mopping asphalt Ply Sheet  MB Base, Ply IV, Ply VI or any other UL Classified Type G1 or Type G2, max four plies, adhered with hot asphalt Surfacing Gravel, 400 lb²	4"	А
10.	NC	Insulation One or more layers ISO 95+ GL any thickness, nailed or adhered with hot roofing asphalt or hot roofing coal tar  Surfacing Gravel surfaced Class A, B or C asphalt organic, glass fiber, organic/glass fiber or coal tar felt system	3"	А
11.	NC to that a	Insulation One or more layers ISO 95+ GL any thickness, nailed or adhered with hot roofing asphalt  Surfacing Any UL Classified A, B or C asphalt organic or glass fiber system surfaced with Owens-Corning Type G2 Perma Ply 28" or Roll Roofing No. 45 or Type G3 Perma Cap pecified for classified system	See Note 1	А
	to that s	Insulation		
12.	C – 15/32	ISO 95+ GL, ½" thick min  Insulation  Wood fiberboard, ½" thick min  Ply Sheet  Four or more plies Type G1, hot mopped  Surfacing  Gravel, 400 lb²	1/4"	Α



Asphalt Systems with Surfacing - Class A

UL Assembly	Deck	Roofing System	Maximum	Class
Number			Slope	
13.	NC	Insulation FiberTop B, or Structodek High Density Fiberboard, ½" mechanically fastened with metal insulation anchors or hot mopped  Base Sheet  Three or more plies Type G1 asphalt glass fiber ply sheet  Surfacing  Gravel, crushed stone or slag	3"	A
17.	C – 15/32	Insulation  ISO 95+ GL, RESISTA - any thickness, mechanically fastened or adhered with hot roofing asphalt, any combination  Barrier Board  Minimum ¼" thick, Georgia-Pacific Gypsum LLC DensDeck Roof board or DensDeck Prime Roof board or DensDeck DuraGuard Roof Board  Base Ply  BASEGARD SA, self-adhered  Intermediate Ply  (Optional) SBS Premium Poly Base, MB Base, SBS Base, SBS Poly Base, SBS Premium Base, SBS Glass Torch Base, SBS Glass Torch Base 1.5, SBS Poly Torch Base, SBS Smooth mopped or torched  Cap Ply  SBS Premium FR Torch, SBS Premium FR, SBS FR, SBS FR Torch, SBS Glass FR and SBS Glass FR Torch, the membrane is either torched or mopped with hot asphalt to the base sheet or adhered with Firestone Multi-Purpose MB Cold Adhesive	1/2"	Α
18.	NC	Insulation ISO 95+ GL, RESISTA, ISOGARD HD Composite or ISOGARD HD, any thickness, - mechanically fastened  Base Ply BASEGARD SA, self-adhered Intermediate Ply (Optional) SBS Premium Poly Base, MB Base, SBS Base, SBS Poly Base, SBS Premium Base, SBS Glass Torch Base, SBS Glass Torch Base 1.5, SBS Poly Torch Base, SBS Smooth - mopped or torched  Cap Ply SBS Premium FR Torch, SBS Premium FR, SBS FR, SBS FR Torch, SBS Glass FR and SBS Glass FR Torch, the membrane is either torched or mopped with hot asphalt to the base sheet or adhered with Firestone Multi-Purpose MB Cold Adhesive	1/4"	A
19.	NC	Base Sheet Channel Venting Base, MB Base, Ply IV, or Ply VI, mechanically fastened or hot mopped Insulation (Optional) Perlite or glass fiber, any thickness, mechanically fastened or hot mopped Ply Sheets One or more layers Channel Venting Base, MB Base, Ply IV, or Ply VI Surfacing Gravel, crushed stone or crushed slag, in a flood coat of hot roofing asphalt	3"	Α



#### Asphalt Systems with Surfacing - Class A

UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
20.	NC	Insulation ISO 95+ GL, RESISTA, ISOGARD HD, ISOGARD HD Composite any thickness, loose-laid or mechanically fastened  Base Sheet One ply SBS Premium Poly Base, mechanically fastened Inter Ply Sheet One ply SBS Premium Poly Base, fully adhered with hot mopping asphalt  Membrane UltraPly TPO XR 100 (45 mil), UltraPly TPO XR 115 (60 mil) or UltraPly TPO XR 135 (80 mil), fully adhered with hot mopping asphalt	1/4"	Α
21.	NC	Insulation ISO 95+ GL, RESISTA, any thickness, mechanically fastened Barrier Board Georgia-Pacific Gypsum LLC Dens Deck, ¼" mechanically fastened Base Sheet: One ply SBS Premium Poly Base, mechanically fastened Ply Sheet One ply SBS Premium Poly Base, fully adhered with hot mopping asphalt Membrane UltraPly TPO XR 100 (45 mil), UltraPly TPO XR 115 (60 mil) or UltraPly TPO XR 135 (80 mil), fully adhered with hot mopping asphalt	1/2"	Α

## Asphalt Systems with Surfacing – Class B

UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
1.	C – 15/32	Base Sheet One layer MB Base, or SBS Base, mechanically fastened Ply Sheet (Optional) One layer MB Base, adhered with Multi-Purpose MB Cold Adhesive or LiquiGard Membrane Adhesive at 1.5-gal <sup>2</sup> Membrane One layer SBS Glass FR, adhered with Multi-Purpose MB Cold Adhesive or LiquiGard Membrane Adhesive at 1.5-gal <sup>2</sup>	1/2"	В
2.	C – 15/32	Base Sheet One layer MB Base, SBS Base or SBS Premium Base, mechanically fastened Ply Sheet One layer MB Base, or SBS Base sheet adhered with Multi-Purpose MB Cold Adhesive or LiquiGard Membrane Adhesive at 1.5-gal² Membrane One layer SBS FR Cap or SBS Premium FR, adhered with "Multi-Purpose MB Cold Adhesive" or LiquiGard Membrane Adhesive at 1.5-gal²	1/2"	В
3.	C – 15/32	<u>Base Sheet</u> 1 ply MB Base mechanically fastened. <u>Membrane</u> 1 ply APP 180 FR Cool fully adhered with Multi-Purpose MB Cold Adhesive at 1.5-gal <sup>2</sup>	1/2"	В



#### Asphalt Systems with Surfacing – Class B

UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
4.	NC	Insulation (Optional) ISO 95+ GL, FiberTop B, any thickness, or any UL Classified Polyisocyanurate, perlite, fiberglass or wood fiberboard, any combination, any thickness, mechanically fastened or hot mopped Base Sheet One layer SBS Base, SBS Poly Base, Ply IV, Ply VI, or MB Base sheet fully adhered with LiquiGard Membrane Adhesive at 1.5-gal <sup>2</sup> Membrane One or more SBS Cap FR or SBS Glass FR fully adhered with LiquiGard Membrane Adhesive at 1.5-gal <sup>2</sup>	1"	В

#### Asphalt Systems with Surfacing - Class C

UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
1.	NC	Insulation (Optional) ISO 95+ GL, FiberTop B, any thickness, or any UL Classified Polyisocyanurate, perlite, fiberglass or wood fiberboard, any combination, any thickness, mechanically fastened or hot mopped Base Sheet One layer SBS Base, SBS Poly Base, Ply IV, Ply VI, or MB Base sheet fully adhered with LiquiGard Membrane Adhesive at 1.5-gal <sup>2</sup> Membrane One or more plies SBS Premium, SBS Smooth, SBS Metal Flash AL or SBS Glass fully adhered with LiquiGard Membrane Adhesive at 1.5-gal <sup>2</sup>	5"	С

UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
1.	NC	Insulation Isocyanurate, perlite, isocyanurate/composite, wood fiber and glass fiber, any thickness, mechanically fastened or adhered with hot roofing asphalt, any combination  Base Sheet One ply Type G1 or Type G2, mechanically fastened or sprinkle mopped.  Ply Sheet  Two or more plies Type G1 or Type G2, adhered with hot roofing asphalt  Base Coat  Firestone Fibered Asphalt Emulsion at 1.5-gal²  Intermediate Coat  AcryliTop Base Coat for Asphalt at 1.5- gal²  Top Coat  AcryliTop PC-100, 1-gal²	1"	A



UL Assembly	Deck	Roofing System	Maximum	Class
Number	Door	Rooming dystem	Slope	Olass
2.	NC	Insulation Isocyanurate, perlite, isocyanurate/composite, wood fiber and glass fiber, any thickness, mechanically fastened or adhered with hot roofing asphalt, any combination  Base Sheet One ply Type G1 (Firestone Ply IV or Ply VI) or G2 (Firestone MB Base), mechanically fastened or mopped with hot asphalt  Ply Sheet Three or more plies Type 15, G1 or G2, adhered with hot roofing asphalt  Surfacing Firestone Aluminum Fibered Asphalt Emulsion at 1.5-gal²	2"	A
2A.	C – 15/32	Barrier Board  Minimum ¼" thick Georgia-Pacific Gypsum LLC DensDeck Roof Board or DensDeck Prime Roof Board or DensDeck DuraGuard Roof Board, mechanically fastened  Insulation (Optional)  Isocyanurate, perlite, isocyanurate/composite, wood fiber and glass fiber, any thickness, mechanically fastened or adhered with hot roofing asphalt, any combination  Base Sheet  One ply Type G1 (Firestone Ply IV or Ply VI) or G2 (Firestone MB Base), mechanically fastened or sprinkle mopped with hot asphalt Ply Sheet  Three or more plies Type 15, G1 or Type G2, or Firestone MB Base or Ply IV or Ply VI felts adhered with hot roofing asphalt Surfacing  Firestone Aluminum Fibered Asphalt Emulsion at 1.5-gal²	2"	А



UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
3.	C – 15/32	Insulation (Optional)  ISO 95+ GL or RESISTA or ISOGARD HD Composite or any UL Classified Polyisocyanurate or perlite or wood fiber, any thickness, fully adhered with hot roofing asphalt, mechanically fastened or adhered with any UL Classified insulation adhesive Barrier Board (Not Required for Noncombustible Roof Decks) Minimum ¼" thick, Georgia-Pacific Gypsum LLC DensDeck Roof Board or DensDeck Prime Roof Board or DensDeck DuraGuard Roof Board or minimum ¼" thick Untied States Gypsum Co. Securock® Roof Board (Type FRX-G) or Securock Glass-Mat Roof Board (Type SGMRX) or minimum ½" thick gypsum board with the butt joints in the barrier board staggered a minimum of 6" from plywood deck joints; fully adhered with hot roofing asphalt or mechanically fastened or adhered with any UL Classified insulation adhesive Base Sheet  1 ply Soprema Inc.'s Sopralene 250 Sanded fully adhered with Multi- Purpose MB Cold Adhesive applied at a rate of 1.5 to 2-gal/100 ft² Membrane  SBS Premium FR or SBS Glass FR or BS Torch FR or SBS Glass FR Torch or SBS Premium FR Torch (modified bitumen) fully adhered with Multi-Purpose MB Cold Adhesive applied at a rate of x-gal/100 ft² or fully adhered with hot roofing asphalt or heat welded	1"	A
4.	NC	Insulation ISO 95+ GL, RESISTA or ISOGARD HD Composite, hot mopped or mechanically fastened  Cover Board (Optional)  ½" ISOGARD HD, ¼", ½" or 5%" thick United States Gypsum Co. Securock Glass-Mat Roof Board or Securock Gypsum-Fiber Roof Board or Georgia-Pacific Gypsum LLC DensDeck Prime® or DensDeck, cover board may be hot mopped attached with insulation adhesive or mechanically fastened.  Base Sheet  SBS Premium Poly Base adhered with Multi-Purpose MB Cold Adhesive Membrane  SBS Premium FR, SBS Glass FR, SBS FR Torch, SBS Glass FR Torch, SBS Premium FR Torch (modified bitumen), the membrane is either torched or mopped with hot asphalt to the base sheet or adhered with Multi-Purpose MB Cold Adhesive	1½"	А



		a cold bystellis – class A		
UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
5.	C – 15/32	Insulation (Optional)  Any UL Classified Polyisocyanurate hot mopped or mechanically fastened  Barrier Board  1/4", 1/2" or 5/8" thick Untied States Gypsum Co. Securock Glass-Mat Roof Board or Securock Gypsum-Fiber Roof Board or Georgia-Pacific Gypsum LLC DensDeck Roof Board or DensDeck Prime Roof Board or DensDeck DuraGuard Roof Board cover board may be hot mopped attached with insulation adhesive or mechanically fastened  Base Sheet:  SBS Premium Poly Base mopped or torched or adhered with Multi-Purpose MB Cold Adhesive  Membrane  SBS Premium FR, SBS Glass FR, SBS FR Torch, SBS Glass FR Torch, SBS Premium FR Torch (modified bitumen), the membrane is either torched or mopped with hot asphalt to the base sheet or adhered with Multi-Purpose MB Cold Adhesive	1/2"	A
6.	NC	Insulation ISO 95+ GL any thickness, mechanically fastened or adhered with any UL Certified insulation adhesive  Cover Board Minimum ½" thick UL Certified wood fiber board or minimum ¼" thick Georgia-Pacific Gypsum LLC DensDeck Roof Board or DensDeck Prime Roof Board or DensDeck DuraGuard Roof Board or United States Gypsum Co. Securock Gypsum-Fiber Roof Board (Type FRX-G). The cover board may be mechanically attached or secured with hot roofing asphalt or UL Certified Insulation adhesive  Ply Sheets  Two or more plies of Ply IV, Ply VI or MB Base fully adhered with hot roofing asphalt  Cap Membrane  SBS FR, SBS Glass FR or SBS Premium FR, SBS FR Torch, SBS Glass FR Torch, SBS Premium FR Torch either mopped, torched or adhered with Multi-Purpose MB Cold Adhesive applied at a rate of 1.5-gal/100 ft²	1/2"	A



## Combination Hot & Cold Systems – Class B

UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
1.	NC	Insulation ISO 95+ GL, RESISTA or ISOGARD HD Composite, hot mopped or mechanically fastened  Barrier Board (Optional)  ½" ISOGARD HD, ¼", ½" or 5%" thick Securock Glass-Mat Roof Board or Securock Gypsum-Fiber Roof Board, Georgia-Pacific Gypsum LLC  DensDeck Roof Board or DensDeck Prime Roof Board or DensDeck  DuraGuard Roof Board, cover board may be hot mopped attached with insulation adhesive or mechanically fastened  Base Sheet  SBS Premium Poly Base adhered with Multi-Purpose MB Cold Adhesive Membrane  SBS Premium FR, SBS Glass FR, SBS FR Torch, SBS Glass FR Torch, SBS Premium FR Torch (modified bitumen), the membrane is either torched or mopped with hot asphalt to the base sheet or adhered with Multi-Purpose MB Cold Adhesive	2"	В

#### Any UL Classified Modified Bitumen Systems - Class A, B or C

Any OL Classified Modified Bitumen Systems – Class A, B or C						
UL Assembly Number	Deck	Roofing System	Maximum Slope	Class		
1.	NC See NOTE 1	Insulation  Any UL Classified, any thickness, adhered with Twin Jet or Quick Dual Membrane  Any UL Classified modified bitumen system, BUR system or CPE, CSM, CSPE, EPDM, NBP, PIB, PVC, TPO or TRE membrane system suitable for use with any roof insulation  NOTE 1  Classification (A, B or C) and maximum incline will be the same as that of the Classified Roofing System (TGFU) currently limited to noncombustible deck	See NOTE 1	A/B/C See NOTE 1		
3.	NC See NOTE 1	Insulation  Any UL Classified, any thickness, adhered with I.S.O. Spray R or I.S.O. Spray R-SAF  Membrane  Any UL Classified modified bitumen system, BUR system or CPE, CSM, CSPE, EPDM, NBP, PIB, PVC, TPO or TRE membrane system suitable for use with any roof insulation  NOTE 1  Classification (A, B or C) and maximum incline will be the same as that of the Classified Roofing System (TGFU) currently limited to noncombustible deck	See NOTE 1	A/B/C See NOTE 1		



#### **Ballasted Systems - Class A**

	- ,	115 - C1855 A		
UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
5.	C – 15/32	Insulation (Optional) Perlite, glass fiber, isocyanurate, any ISO 95+ GL/ISOGARD  Base Sheet GAF Base sheet, Johns Manville GlasBase or Firestone MB Base, mechanically attached or hot mopped  Membrane APP 160 or APP 170 (modified bitumen), heat fused  Surfacing Gravel or slag loose laid or set in hot roofing asphalt.	1½"	Α
6.	NC	Insulation (Optional) HailGard Composite Board, Perlite, glass fiber, wood fiber, isocyanurate, any ISO 95+ GL insulation, urethane or composite, any thickness  Base Sheet (Optional)  Type G1, G2 or G3  Membrane  APP 160 or APP 170 (modified bitumen), heat fused  Surfacing Gravel or slag, loose laid or set in hot roofing asphalt	1"	Α
7.	C – 15/32	Insulation (Optional)  Perlite, glass fiber, wood fiber, isocyanurate, any ISO 95+ GL insulation or any other UL Classified insulation, any combination  Base Sheet (Optional): Type G1, G2 or G3 or Firestone Protection Mat (not UL Classified)  Membrane  APP 160 or APP 170 (modified bitumen), heat fused or any UL Classified PVC, EPDM, CPE, CSPE, TRE, nitrile alloy or modified bitumen  Insulation (Optional): Dow Chemical STYROFOAM RM, PD, SM, TG or STYRORIB, 1" min. When the insulation is applied in more than one layer, successive layers shall be installed without attachment to the preceding layer Slip Sheet (Optional)  Fiberglas mat may be laid between the insulation and membrane Scrim (Optional)  Fabrene, International Paper D689 or Rufon Polypropylene, 2 oz/yd² (not Classified).  Surfacing  One of the following: a.) 900 lb² min of crushed stone or river bottom stone which is free from dirt and graded to a typical size of ¾" with a min of ½" for crushed stone and ¾" to 1¾" for river bottom stone. b.) Concrete blocks weighing not less than 10 lb/ft² and spread not more than ½" apart	2"	Α



## **Ballasted Systems – Class A**

UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
8.	C – 15/32	Insulation (Optional) Perlite, glass fiber, wood fiber, polyisocyanurate, urethane or composite, any thickness  Base Sheet (Optional) Type G1, Type G2 or Type G3  Membrane APP 160 or Firestone APP 170 (modified bitumen).  Insulation  Dow Chemical STYROFOAM RM, PD, SM, TG or STYRORIB, 1" min. When the insulation is applied in more than one layer, successive layers shall be installed without attachment to the preceding layer Slip Sheet (Optional) Fiberglas mat may be laid between the insulation and membrane Scrim (Optional) Fabrene, International Paper D689 or Rufon Polypropylene, 2 oz/yd² (not Classified). Surfacing  Dow Chemical STYROFOAM panels surfaced with a min of 3/8" thick concrete mortar panels to be abutted together	3"	A
9.	C – 15/32	Insulation  Any Firestone ISO 95+ GL insulation, any thickness, loose laid or mechanically fastened  Membrane  Fire Retardant RubberGard (EPDM), 45 or 60-mil, UltraPly TPO, any color, APP 160 or Firestone APP 170, (modified bitumen) or any UL Classified CPE, EPDM, LSPE, PVC, TRE, Nitrile alloy or modified bitumen, loose laid or mechanically fastened  Surfacing  River bottom stone (¾" to 1½" diameter), 1000 lb²	2"	Α

UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
25.	NC	Insulation (Optional) Perlite, glass fiber, wood fiber, isocyanurate, phenolic, foam glass, urethane or composite, any thickness  Base Sheet Type G1, Type G2 or Type G3  Membrane Firestone APP 160 or Firestone APP 170 (modified bitumen), heat fused Surfacing Firestone Aluminum Fibered Roof Coating, 1.5-gal², Karnak Chemical No. 97 or No. 169, applied at 1 gal² or No. 97 AF	1"	A



UL		Stellis – Class A	Maximum	
Assembly Number	Deck	Roofing System	Slope	Class
27.	NC	Insulation One or more layers UL Classified polystyrene, min 1" thick Insulation One layer min ½" wood fiber board Base Sheet One or more layers OCF No. 28 base sheet, hot mopped, cold application adhesive or mechanically attached Membrane Firestone APP 160 or Firestone APP 170 (modified bitumen), heat fused Coating Firestone Aluminum Fibered Roof Coating, 1.5-gal², Karnak No. 97 applied at 1-gal² or No. 97 AF, applied at 1.5-gal²	1/4"	А
30.	C – 15/32	Insulation Any UL Classified, any thickness  Barrier Board  Water Resistant wallboard, ½" nom, joints in wallboard offset 6" with joints in deck (may be placed above or below insulation)  Base Sheet  Type G1, Type G2 or Type G3  Membrane  Firestone APP 160 or Firestone APP 170 (modified bitumen), heat fused Coating  Firestone Aluminum Fibered Roof Coating, 1½ gal², Karnak Chemical No. 97 or No. 169, applied at 1 gal² or No. 97 AF, applied at 1.5-gal²	1"	А
31.	C – 15/32	Insulation Any UL Classified, any thickness.  Barrier Board Regular wallboard, ½" nom, joints in wallboard offset 6" with joints in deck (may be placed above or below insulation).  Base Sheet Type G1, Type G2 or Type G3.  Membrane Firestone APP 160 or Firestone APP 170 (modified bitumen), heat fused Coating Firestone Aluminum Fibered Roof Coating, 1.5-gal², Karnak Chemical No. 97 or No. 169, applied at 1-gal² or No. 97 AF, applied at 1.5-gal²	1/2"	A
32.	NC	Insulation (Optional) Perlite, glass fiber, wood fiber, phenolic, isocyanurate, urethane or composite, any thickness  Base Sheet Type G1, Type G2 or Type G3.  Membrane Firestone APP 160 or Firestone APP 170 (modified bitumen), heat fused  Coating Firestone Aluminum Fibered Roof Coating, 1.5-gal², Karnak Chemical No.  97 AF, 1.5-gal²	1"	А



UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
40.	NC	Vapor Retarder (Optional):  Type G2 base sheet GlasBase or UL Classified vapor retarder Insulation (Optional)  One or more layers or combination of the following: polyisocyanurate, perlite, glass fiber or wood fiber insulation, any thickness  Base Sheet  One layer Type G2 GlasBase base sheet  Membrane  One layer Firestone APP 180-P, or APP 180 P (¾ sq or 1 sq), (modified bitumen), heat fused or Firestone SBS, (modified bitumen) hot mopped  Surfacing  Firestone Aluminum Fibered Roof Coating, 1½ gal², APOC No. 212 Fibrated Aluminum at 1.5-gal. 100 ft² or Karnak No. 97 Fibrated Aluminum roof coating at 1.5-gal/ft²	1"	A
42.	NC	Base Sheet Type G1, Type G2, Type G3 or vented base sheet, mechanically fastened or hot mopped  Membrane Firestone SBS Glass FR (modified bitumen), hot mopped in place	1"	A
43.	NC	Insulation (Optional)  Any UL Classified, any thickness. When polystyrene (EPS) is used, a min ½" thick layer of wood fiber or perlite must cover the EPS  Base Sheet  Type G1, Type G2 or Type G3, mechanically fastened or hot mopped Membrane  Firestone SBS Glass FR" (modified bitumen), hot mopped in place	1"	А
55.	NC	Insulation (Optional)  Any UL Classified, any thickness (EPS must be covered with ½" min wood fiber, glass fiber or perlite)  Base Sheet  One or more plies Type G1, G2 or G3, Firestone MB Base or SBS Base or SBS Base-P sheet, mechanically fastened or hot mopped  Ply Sheet (Optional)  Firestone SBS Smooth mechanically fastened or hot mopped  Membrane  One or more plies SBS Glass FR, SBS, SBS Premium or SBS Smooth, (modified bitumen), hot mopped.  Surfacing  Gravel	1½"	А



UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
save56.	C – 15/32	Insulation (Optional)  Any UL Classified, any thickness (EPS must be covered with ½" min wood fiber, glass fiber or perlite)  Base Sheet  One or more plies Type G1, Type G2 or Type G3, Firestone MB Base or SBS Base or SBS Base-P sheet, mechanically fastened or hot mopped Ply Sheet (Optional)  One or more plies Firestone SBS Smooth, mechanically fastened or hot mopped Membrane  One or more plies Firestone SBS Glass FR, SBS, SBS Premium or SBS Smooth (modified bitumen), hot mopped Surfacing Gravel	1"	А
57.	NC	Insulation (Optional)  Any UL Classified, any thickness (EPS must be covered with ½" min wood fiber, glass fiber, gypsum wallboard or perlite)  Base Sheet:  One or more plies Type G1, Type G2 or Type G3, or Firestone SBS Base or SBS Base-P sheet, mechanically fastened or hot mopped.  Ply Sheet (Optional)  One or more plies Firestone SBS Smooth, mechanically fastened or hot mopped.  Membrane  One or more plies Firestone SBS, SBS Premium or SBS Smooth, hot mopped  Surfacing  Firestone Aluminum Fibered Roof Coating, 1.5-gal², Karnak Chemical No. 97, 1-gal² or No. 97AF, 1.5-gal²	1"	A
58.	C – 15/32	Base Sheet Two or more plies Type G2 (25 lb² min.) or Firestone SBS Base or SBS Base-P sheet, mechanically fastened or hot mopped Ply Sheet (Optional) One or more plies Firestone SBS Smooth, mechanically fastened or hot mopped. Membrane One or more plies Firestone SBS, SBS Premium or SBS Smooth, hot mopped Surfacing Firestone Aluminum Fibered Roof Coating, 1.5-gal², Karnak Chemical No. 97, 1 gal² or No. 97AF, 1.5-gal²	1/2"	А



UL	,	Stellis – Class A		
Assembly	Deck	Roofing System	Maximum	Class
Number			Slope	
59.	C – 15/32	Insulation Polyisocyanurate, urethane, polyisocyanurate/perlite composite, urethane/perlite composite, 2" thick min, glass fiber, wood fiber or perlite, 1" thick min, joints in insulation offset 6" with joints in deck. Insulations requiring a min thickness of 2" may be used in a 1½ thickness if covered with ½" thick layer of wood fiber, glass fiber, perlite or gypsum wallboard Base Sheet One or more plies Type G2 or Firestone SBS Base or SBS Base-P sheet, mechanically fastened or hot mopped Ply Sheet (Optional) One or more plies Firestone SBS Smooth, mechanically fastened or hot mopped Membrane One or more plies Firestone SBS, SBS Premium or SBS Smooth (modified bitumen), hot mopped Surfacing Firestone Aluminum Fibered Roof Coating, 1.5-gal², Karnak Chemical No 97, 1-gal² or No 97AF, 1½ ga	1/2"	A
60.	NC	Insulation (Optional)  Any UL Classified, any thickness. (EPS must be covered with ½" thick min wood fiber, glass fiber, perlite or gypsum wallboard)  Base Sheet  One or more plies Type G1, Type G2, Type G3 or Firestone MB Base, mechanically fastened or hot mopped.  Membrane  Firestone BS Premium FR (modified bitumen), hot mopped	1/2"	А
61.	C – 15/32	Insulation  Wood fiber, 1" thick min, glass fiber, 15/16" thick min, perlite, ¾" thick min, polyisocyanurate, phenolic, urethane, polyisocyanurate/perlite composite or urethane/perlite composite, 2" thick min or polyisocyanurate, phenolic, urethane, polyisocyanurate/perlite composite or urethane/perlite composite, min 1½" covered with: 1.) Wood fiber, ½" min; 2.) Perlite, ½" min; 3.) Gypsum, ½" min; 4.) Fiberglass, ½" min. Joints in insulation offset 6" with joints in deck  Ply sheet  One or more plies Type G2 (26 lb² min), Firestone MB Base Sheet (26lb² min) or SBS Base or SBS Base-P sheet, mechanically fastened or hot mopped  Ply sheet (Optional)  One or more plies Firestone SBS Smooth, or Type G1, hot mopped or mechanically fastened  Membrane Firestone SBS Glass FR (modified bitumen), hot mopped	1/2"	A



UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
62.	C – 15/32	Ply Sheet Two or more plies Type G2 (25 lb² min), Firestone MB Base Sheet (26 lb² min) or SBS Base or SBS Base-P sheet, mechanically fastened or hot mopped Ply Sheet (Optional) One or more plies Firestone SBS smooth, hot mopped or mechanically fastened Membrane Firestone SBS Glass FR (modified bitumen), hot mopped	1/2"	А
63.	NC	Insulation (Optional)  Any UL Classified, any thickness (EPS must be covered with ½" min wood fiber, glass fiber or perlite)  Base Sheet  One or more plies Type G1, Type G2 or Type G3, or Firestone SBS Base or SBS Base-P sheet, mechanically fastened or hot mopped Ply Sheet (Optional)  One or more plies Firestone SBS Smooth, mechanically fastened or hot mopped Membrane  One or more plies Firestone SBS Glass FR (modified bitumen), hot mopped	1"	A
65.	NC	Insulation Polyisocyanurate, glass fiber, perlite, wood fiber, hot mopped or mechanically fastened, any thickness  Base Sheet Type G2, mechanically fastened or hot mopped  Membrane Firestone APP 160 or Firestone APP 170 (modified bitumen), heat fused  Surfacing Henry "Henry 520 Aluminum" applied at 1.5- gal <sup>2</sup>	1/2"	А
67.	NC	Insulation (Optional)  Any thickness, one or more layers UL Classified perlite, wood fiber, glass fiber, polyisocyanurate, polyisocyanurate/composite, EPS/wood fiber, EPS/perlite, EPS/composite or Partek Insulation "PAROC" roof insulation Base Sheet  One or more layers Type G1 or Type G2  Membrane  One or more layers Firestone APP 160, APP 160-P, or Firestone APP 170 (modified bitumen), heat fused  Surfacing  Fields F530 Heat Shield Aluminum Coating or F630 Heat Shield Fibered Aluminum Coating, 1.5-gal²	1"	А



		Stellis – Class A		
UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
68.	NC	Insulation (Optional) Any UL Classified, any thickness. (EPS must be covered with ½" min wood fiber, glass fiber or perlite)  Base Sheet One or more plies Type G1, Type G2 or Type G3 Ply Sheet (Optional): One or more plies Firestone APP 160 or APP 170, heat fused  Membrane Firestone APP 180 FR, heat fused	2"	A
69.	NC	Insulation (Optional)  Any UL Classified, any thickness. (EPS must be covered with ½" min wood fiber, glass fiber, perlite or gypsum wallboard)  Base Sheet  One or more plies Type G1, Type G2 or Type G3 or Firestone MB Base Sheet, mechanically fastened or hot mopped  Membrane Firestone SBS Premium FR (modified bitumen), hot mopped	1/2"	A
77.	C – 15/32	Insulation (Optional) Perlite or glass fiber, 15/16" thick min, or polyisocyanurate, 2" thick min, joints in insulation offset 6" with joints in deck  Base Sheet  Two or more plies MB Base (Type G2) or any Type G2 weighing a min of 23 lb², mechanically fastened, spot or fully mopped  Ply Sheet (Optional)  Firestone APP 160 or APP 170 (modified bitumen), heat fused  Membrane  Firestone APP 180 FR (modified bitumen), heat fused	1/2"	А
78.	C – 15/32	Insulation (Optional) Perlite or glass fiber, 15/16" thick min, or polyisocyanurate, 2" thick min, joints in insulation offset 6" with joints in deck  Base Sheet  Two or more plies MB Base (Type G2) or any Type G2 weighing a min of 23 lb², mechanically fastened, spot or fully mopped  Ply Sheet (Optional): Firestone APP 160 or APP 170 (modified bitumen), heat fused  Membrane  Firestone APP 180 FR (modified bitumen), heat fused	1/2"	А
83.	NC	Insulation (Optional) Glass fiber or perlite, 1" max, mechanically fastened Membrane: One layer Firestone SBS Metal Flash-AL (modified bitumen), heat fused or hot mopped.	1"	А



UL Assembly	Deck	Roofing System	Maximum Slope	Class
Number		Insulation (Optional) Polyisocyanurate, polyisocyanurate/perlite composite, phenolic,	- Slope	
84.	NC	phenolic/perlite composite, glass fiber, wood fiber or perlite, any combination, any thickness and/or EPS covered with min 1" perlite, wood fiber or 15/16" glass fiber  Base Sheet  Type G2, one or more plies	Unlimited	Α
		Membrane Firestone SBS Metal Flash-AL (modified bitumen), heat fused		
85.	C – 15/32	Insulation Polyisocyanurate, 1½" thick min, joints in insulation offset 6" with joints in deck Base Sheet One or more plies Type G2, mechanically fastened, spot or fully mopped.  Membrane Firestone SBS Metal Flash-AL (modified bitumen), heat fused	Unlimited	A
86.	C – 15/32	Insulation Perlite or glass fiber, 1" thick min, joints in insulation offset 6" with joints in deck.  Base Sheet One or more plies Type G2, mechanically fastened, spot or fully mopped  Base/Ply Sheet One or more plies Type G2, hot mopped in place  Membrane Firestone SBS Metal Flash-AL (modified bitumen), heat fused	Unlimited	А
97.	NC	Insulation (Optional)  Firestone ISO 95+ GL, Firestone FiberTop™ B, any thickness or any UL Classified polyisocyanurate, perlite, fiberglass or wood fiberboard, any thickness, mechanically fastened, hot mopped or adhered with Firestone Multi-Purpose MB Cold Adhesive at 1.5-gal² Base Sheet  One layer Firestone Ply IV or Ply VI, Firestone MB Base, Firestone SBS Base or SBS Base-P sheet, Firestone SBS Premium Base, Firestone SBS Smooth, or any UL Classified Type G1 or Type G2, mechanically fastened or adhered with Firestone Multi-Purpose MB Cold Adhesive at 1.5-gal² or LiquiGard™ Membrane Adhesive at 1.5-gal²  Membrane  Firestone SBS Glass FR, SBS Premium FR adhered with Firestone Multi- Purpose MB Cold Adhesive" at 1.5-gal² or LiquiGard Membrane Adhesive at 1.5-gal²	1/2"	Α



		Stellis - Class A		
UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
98.	C – 15/32	Base Sheet One layer Firestone MB Base, SBS Base or SBS Base-P sheet or SBS Premium Base, mechanically fastened Ply Sheet One layer MB Base or SBS Base or SBS Base-P sheet, SBS Premium Base, adhered with Firestone Multi-Purpose MB Cold Adhesive or LiquiGard Membrane Adhesive at 1.5-gal² Membrane Firestone SBS Glass FR, adhered with Firestone Multi-Purpose MB Cold Adhesive at 1.5-gal² or LiquiGard Membrane Adhesive at 1.5-gal²	1/2"	Α
100.	C – 15/32	Barrier Board Georgia-Pacific Gypsum LLC DensDeck Roof Board or DensDeck Prime Roof Board or DensDeck DuraGuard Roof Board ¼" thick min or gypsum wallboard, ½" thick min.  Membrane Firestone APP 180 or APP 180-P (modified bitumen), heat fused	1/2"	Α
101.	NC	Barrier Board (Optional)  Minimum ¼" thick Georgia-Pacific Gypsum LLC DensDeck Roof Board or DensDeck Prime Roof Board or DensDeck DuraGuard Roof Board or gypsum wallboard, any thickness  Membrane  Firestone APP 180 (modified bitumen), heat fused	1/2"	Α
102.	C – 15/32	Barrier Board Georgia-Pacific Gypsum LLC DensDeck Roof Board or DensDeck Prime Roof Board or DensDeck DuraGuard Roof Board ½" thick min or gypsum wallboard, ½" thick min.  Base Sheet Type G2, hot mopped or mechanically attached.  Membrane Firestone APP 180 or APP 180-P (modified bitumen), heat fused	1/4"	A
103.	NC	Barrier Board (Optional) Georgia-Pacific Gypsum LLC DensDeck Roof Board or DensDeck Prime Roof Board or DensDeck DuraGuard Roof Board or gypsum wallboard, any thickness Base Sheet Type G2, hot mopped or mechanically attached Membrane Firestone APP 180 or APP-180 P (modified bitumen), heat fused	1/4"	A
104.	C – 15/32	Base Sheet One or more layers Firestone MB Base (Type G2), mechanically fastened or hot mopped Ply Sheet Two or more layers Firestone Ply IV or Ply VI (Type G1) ply sheets, mechanically fastened or hot mopped Membrane One or more layers Firestone SBS Premium FR (modified bitumen), hot mopped or SBS FR Torch, (modified bitumen), heat fused	1/2"	A



UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
121.	C – 15/32	Base Sheet One or more layers Firestone MB Base, (Type G2), mechanically fastened Ply Sheet One or more layers Firestone Ply IV or Ply VI (Type G1), hot mopped Cap Sheet One layer Firestone SBS Premium FR, (modified bitumen), hot mopped	1/2"	A
122.	NC	Insulation (Optional)  Any UL Classified polyisocyanurate, wood fiber, glass fiber or perlite, DensDeck, USG United States Gypsum Co. Securock any thickness, hot mopped or mechanically fastened  Base Sheet  Firestone SBS Poly Torch Base, heat fused or SBS Poly Base hot mopped Ply Sheet (Optional)  One or more layers Firestone Ply IV, Ply VI, MB Base, SBS Base or SBS Base-P sheet, SBS Smooth, SBS Premium Base Sheet, hot mopped or SBS Poly Torch Base Sheet or SBS Poly Base then overlap is heat fused Membrane  One or more layers Firestone SBS Premium FR (modified bitumen), hot mopped or SBS FR Torch, (modified bitumen), heat fused	1/2"	A
126.	NC	Insulation (Optional) Firestone ISO 95+ GL, any thickness, mechanically attached  Base Sheet One layer Firestone BaseGard™ SA self-adhered  Membrane  Firestone SBS Premium FR, SBS Premium FR Torch, SBS FR Torch, SBS Glass FR, SBS Glass FR Torch, APP 180 FR, hot mopped or heat fused	1/2"	A
133.	C – 15/32	Insulation (Optional) Firestone ISO 95+ GL, any thickness, or any other UL Classified polyisocyanurate, any thickness, loose-laid or mechanically fastened Barrier Board  Georgia-Pacific Gypsum LLC DensDeck Roof Board or DensDeck Prime Roof Board or DensDeck DuraGuard Roof Board, min ¼" thick, mechanically fastened  Base Sheet  Firestone SBS Glass Torch Base or SBS Glass Torch Base 1.5 Square heat fused or any other UL Classified Type G1 or Type G2, hot mopped or mechanically fastened  Membrane  Firestone SBS Metal Flash-AL, heat fused	Unlimited	A



UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
134.	NC	Insulation (Optional) Any UL Classified except polystyrene (extruded and expanded), any combination, any thickness  Base Sheet One or more plies Firestone MB Base, Ply IV or Ply VI, mechanically fastened or adhered with Firestone Multi-Purpose MB Cold Adhesive, 1.5-gal²  Ply Sheet (Optional) Firestone APP 160 Cool or APP 170 Cool, mechanically fastened or adhered with Firestone Multi-Purpose MB Cold Adhesive, 1.5-gal²  Membrane Firestone APP 180 FR Cool, heat fused or adhered with Firestone Multi-Purpose MB Cold Adhesive, 1.5-gal²  Base Coat (Optional) Firestone ACRYLIC Base Coat for Asphalt, 1.5-gal²  Surfacing (Optional) Firestone AcryliTop PC-100, 1-gal²	1"	A
189.	NC	Insulation Perlite, glass fiber or wood fiber, any thickness  Base Sheet Type G-2, mechanically fastened  Membrane Firestone APP 160-P or APP 180-P, heat fused  Surfacing  Karnak Chemical Corp.'s Karnak No. 97 Fibrated Aluminum Roof Coating,  1.5-gal²	1/4"	А
192.	NC	Insulation Firestone ISO 95+ GL, RESISTA, ISOGARD HD any thickness  Base Sheet Firestone BASEGARD SA, self-adhered  Membrane Firestone SBS Premium FR, SBS Glass FR, SBS Torch FR, SBS Glass FR Torch, SBS Premium FR Torch (modified bitumen), the membrane is either torched or mopped with hot asphalt to the base sheet	1/4"	A
193.	C – 15/32	Insulation (Optional) Firestone ISO 95+ GL, RESISTA any thickness  Barrier 1/4" DensDeck Base Sheet Firestone BASEGARD SA, self-adhered Membrane Firestone SBS Premium FR, SBS Glass FR, SBS Torch FR, SBS Glass FR Torch, SBS Premium FR Torch (modified bitumen), the membrane is either torched or mopped with hot asphalt to the base sheet	1/4"	Α



		stems – Class A		
UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
194.	NC	Insulation Firestone ISO 95+ GL, RESISTA, ISOGARD HD any thickness Base Sheet Firestone BASEGARD SA sheet that is self-adhered to the ISO Ply Sheet  (Optional) Firestone SBS Base, SBS Premium Base, MB Base, SBS Glass Torch Base or SBS Glass Torch Base 1.5 Square, (Ply sheet is either mopped or torched to self-adhered base sheet)  Membrane  Firestone SBS Premium FR, SBS Glass FR, SBS Torch FR, SBS Glass FR Torch, SBS Premium FR Torch (modified bitumen), the membrane is either torched or mopped with hot asphalt to the base sheet	1/4"	A
195.	C – 15/32	Insulation  (Optional) Firestone ISO 95+ GL, RESISTA, ISOGARD HD any thickness  Barrier Board  1/4" DensDeck  Base Sheet  Firestone BASEGARD SA, self-adhered  Ply Sheet (Optional)  Firestone SBS Base, SBS Premium Base, MB Base, SBS Glass Torch Base or  SBS Glass Torch Base 1.5 Square, (Ply sheet is either mopped or torched to self-adhered base sheet)  Membrane  Firestone SBS Premium FR, SBS Glass FR, SBS Torch FR, SBS Glass FR  Torch, SBS Premium FR Torch (modified bitumen), the membrane is either torched or mopped with hot asphalt to the base sheet	1/4"	A
196.	C – 15/32	Insulation  Minimum 1" Firestone RESISTA  Base Sheet  Firestone BASEGARD SA sheet that is self-adhered to the insulation  Membrane  Firestone SBS Premium FR, SBS Glass FR, SBS Torch FR, SBS Glass FR  Torch, SBS Premium FR Torch (modified bitumen), the membrane is either torched or mopped with hot asphalt to the base sheet	1/4"	А
197.	C – 15/32	Insulation  Minimum 1" Firestone RESISTA mechanically fastened  Base Sheet  Firestone SBS Poly Base, mechanically attached  Interply  Firestone BASEGARD SA - self adhered  Cap  Firestone SBS Premium FR Torch, SBS Premium FR, SBS FR, SBS Glass FR, SBS Torch FR, SBS Glass FR Torch, SBS Premium FR Torch (modified bitumen), the membrane is either torched or mopped with hot asphalt to the base sheet	1/4"	Α



UL		Desting System	Maximum	Class
Assembly Number	Deck	Roofing System	Slope	Class
198.	C – 15/32	<u>Base</u> Firestone MB Base <u>Interply</u> Firestone BASEGARD SA <u>Cap</u> Firestone SBS Premium FR Torch Cap	1/2"	Α
199.	NC	Insulation Firestone ISO 95+ GL or Any UL Classified polyisocyanurate, perlite, fiberglass or wood fiberboard, any combination, any thickness, mechanically fastened.  Base Firestone BASEGARD SA - Self Adhered  Cap Firestone SBS FR Torch	1"	А
200.	NC	Insulation Firestone ISO 95+ GL or Any UL Classified polyisocyanurate, perlite, fiberglass or wood fiberboard, any combination, any thickness, mechanically fastened.  Base Firestone BASEGARD SA - Self Adhered  Cap Firestone SBS Glass FR Torch	1"	A
202.	C – 15/32	Insulation (Optional)  Firestone ISO 95 + GL or RESISTA or ISOGARD HD Composite or any UL  Classified polyisocyanurate or perlite or wood fiber, any thickness, fully adhered with hot roofing asphalt, mechanically fastened or adhered with any UL  Classified insulation adhesive.  Cover Board (Not Required for Noncombustible Roof Decks)  Minimum ¼" thick, Georgia-Pacific Gypsum LLC DensDeck Roof Board or DensDeck Prime Roof Board or DensDeck DuraGuard Roof Board or minimum ¼" thick Untied States Gypsum Corp. Securock Roof Board (Type FRX-G) or Securock Glass-Mat Roof Board (Type SGMRX) or minimum ½" thick gypsum board with the butt joints in the barrier board staggered a minimum of 6" from plywood deck joints; fully adhered with hot roofing asphalt or mechanically fastened or adhered with any UL Classified insulation adhesive.  Base Sheet  1 ply Soprema Inc.'s Sopralene 250 Sanded or Sopralene Flam 250 mechanically fastened or fully adhered with hot roofing asphalt or heat welded Membrane  Firestone SBS Premium FR or SBS Glass FR or SBS Torch FR or SBS Glass FR Torch or SBS Premium FR Torch (modified bitumen) fully adhered with hot roofing asphalt or heat welded.	1/2"	Α



#### Fully Adhered Systems - Class A

UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
214.	NC	Insulation  Firestone ISO 95 + GL, RESISTA or ISOGARD HD Composite, hot mopped or mechanically fastened.  Barrier Board  1/4", 1/2" or 5/6" thick United States Gypsum Co. Securock Glass-Mat Roof Board or Securock Gypsum-Fiber Roof Board, Georgia-Pacific Gypsum LLC DensDeck Roof Board or DensDeck Prime Roof Board or DensDeck DuraGuard Roof Board, cover board may be hot mopped attached with insulation adhesive or mechanically fastened.  Base Sheet  Firestone BASEGARD SA self-adhered  Membrane  Firestone SBS Premium FR, SBS Glass FR, SBS Torch FR, SBS Glass FR Torch, SBS Premium FR Torch (modified bitumen), the membrane is either torched or mopped with hot asphalt to the base sheet.	1½"-	A

UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
3.	C – 15/32	Insulation (Optional)  Perlite, glass fiber, isocyanurate, any ISO 95+ GL insulation, urethane or composite, any thickness.  Base Sheet or Insulation  Two layers Type G2 or Johns Manville No. 28, or any UL Classified insulation (except EPS), 1" min, optionally covered with ½" min wood fiberboard, ½" min gypsum wallboard, ½" min perlite or 11/16" min glass fiber may be substituted for one layer of No. 28 Base Sheet.  Membrane  Firestone APP 160, Firestone APP 170 or Monoply Plus (modified bitumen), heat fused  Surfacing  Karnak Chemical No. 97 Fibered Coating applied at 1 gal² or No. 97 or Firestone Aluminum Fibered Roof Coating, applied at 1.5-gal²	1/4"	В
5.	C – 15/32	Insulation (Optional)  Perlite, fiber glass, wood fiber, isocyanurate, any ISO 95+ GL insulation, phenolic, foam glass, urethane or composite, any thickness.  Base Sheet  Johns Manville No. 28, GlasBase Bird CRS base or GAF-Glas, hot mopped, cold application adhesive or mechanically fastened.  Membrane  Firestone APP 160 or Firestone APP 170 (modified bitumen), heat fused Cap Sheet  Bird CRS Cap Sheet, OCF Cap Sheet, GAF GAFGLAS Mineral Surfaced Cap Sheet or Johns Manville GlasKap, hot mopped or adhered with Karnak Chemical cold application adhesive No. 81	2"	В



UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
6.	C – 15/32	Base Sheet Two layers Johns Manville No. 28, GlasBase or GAF GAFGLAS (Type G-2), hot mopped, cold application adhesive or mechanically fastened Membrane Firestone APP 160 or Firestone APP 170 (modified bitumen), heat fused Surfacing Karnak Chemical No. 97, applied at 1-gal <sup>2</sup>	1/2"	В
8.	C – 15/32	Insulation Any UL Classified polyisocyanurate, 1" thick min.  Base Sheet  Two layers Type G2 or one layer UL Classified Type VI ply sheet,  mechanically fastened or hot mopped  Membrane  Firestone APP 160 or Firestone APP 170 (modified bitumen), heat fused  Surfacing  Karnak Chemical Karnak No. 97, 1.5-gal²	1/4"	В
9.	C – 15/32	Insulation (Optional)  Any UL Classified, polyisocyanurate, perlite/polyisocyanurate composite, phenolic, glass fiber, wood fiber or perlite, or polystyrene (EPS) covered with a min ½" thick layer of glass fiber, wood fiber or perlite. Joints in insulation offset 6" with joints in deck  Base Sheet  One or more plies Type G2 (26 lb²), Firestone MB Base (26 lb²) or SBS Base or SBS Base-P sheet, mechanically fastened or hot mopped Membrane  SBS Glass FR (modified bitumen), hot mopped in place	1/2"	В
10.	C–5/8 TG	Base Sheet One or more layers Type G2 (23 lb² min), Firestone MB Base Sheet (23 lb² min), hot mopped or mechanically attached  Membrane One or more layers Firestone APP 160, Firestone APP 170 or Firestone APP 180 (modified bitumen), heat fused  Surfacing Firestone Aluminum Fibered Roof Coating, 1.5-gal², Karnak Chemical No. 97AF, 1½ gal² or No. 97, 1.5-gal²	1/2"	В
11.	C – 15/32	Insulation (Optional)  Any thickness, one or more layers UL Classified perlite, glass fiber, polyisocyanurate, polyisocyanurate/composite or Partek Insulation PAROC roof insulation  Base Sheet  One or more layers Type G2  Membrane  One or more layers Firestone APP 160 or Firestone APP 170 (modified bitumen), heat fused  Surfacing  Fields F530 Heat Shield Aluminum Coating or F630 Heat Shield Fibered Aluminum Coating, 1.5-gal²	1/2"	В



UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
12.	C – 15/32	Base Sheet One or more plies Type G2 (25 lb² min) or Firestone MB Base, mechanically attached or hot mopped. Ply Sheet (Optional) One or more plies Firestone APP 160 or Firestone APP 170, heat fused. Membrane Firestone APP 180 FR, heat fused	1/2"	В
13.	C – 15/32	Insulation  Any UL Classified polyisocyanurate, perlite/polyisocyanurate composite, min 1½"; wood fiber, min 1"; perlite, min ¾"; glass fiber, min 15/16", hot mopped or mechanically attached  Insulation (Optional)  Any UL Classified wood fiber, perlite, glass fiber, min ½", hot mopped or mechanically attached  Base Sheet  One or more plies Type G2 (25 lb² min) or Firestone MB Base Sheet, mechanically attached or hot mopped  Ply Sheet (Optional): One or more plies Firestone APP 160 or Firestone APP 170, heat fused  Membrane  "Firestone APP 180 FR", heat fused	1/2"	В
15.	C – 15/32	Base Sheet One or more plies Type G2, mechanically fastened, spot or fully mopped Base/Ply Sheet One or more plies Type G2, hot mopped. Membrane Firestone "BS Metal Flash-AL (modified bitumen), torched	Unlimited	В
16.	C – 15/32	Insulation Perlite or glass fiber, ¾" thick min, joints in insulation offset 6" with joints in deck Base Sheet One or more plies Type G2, mechanically fastened, spot or fully mopped.  Membrane Firestone SBS Metal Flash-AL (modified bitumen), torched	Unlimited	В
17.	C – 15/32	Base Sheet One layer Firestone MB Base, SBS Base or SBS Base-P sheet or SBS Premium Base Sheet, mechanically fastened Ply Sheet (Optional) One layer Firestone B Base Sheet adhered with Firestone Multi-Purpose MB Cold Adhesive at 1.5-gal² Membrane Firestone SBS Glass FR, adhered with Firestone Multi-Purpose MB Cold Adhesive at 1.5-gal²	1/2"	В



UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
18.	C – 15/32	Base Sheet One layer Firestone MB Base, SBS Base, SBS Base-P sheet or SBS Premium Base Sheet, mechanically fastened Ply Sheet One layer Firestone MB Base Sheet, "SBS Base Sheet, SBS Base-P sheet or SBS Premium Base Sheet, adhered with Firestone Multi-Purpose MB Cold Adhesive at 1.5-gal² Membrane Firestone SBS FR Cap GS, SBS Premium FR or SBS Glass FR adhered with Firestone Multi-Purpose MB Cold Adhesive at 1.5-gal²	1/2"	В
19.	NC	Insulation Polyisocyanurate, wood fiber, glass fiber or perlite, any thickness Base Sheet One or more layers Firestone MB Base, mechanically fastened or hot mopped Membrane Firestone SBS FR Cap GS, hot mopped	1½"	В
20.	C – 15/32	Barrier Board Gypsum wallboard, ½" thick min or Georgia-Pacific Gypsum LLC DensDeck, ¼" thick min Insulation Polyisocyanurate, wood fiber, glass fiber or perlite, any thickness Insulation (Optional) Wood fiberboard, hot mopped Base Sheet One or more layers Firestone MB Base, mechanically fastened or hot mopped Ply Sheet One or more layers Type G1, hot mopped Membrane Firestone BS FR Cap GS, hot mopped	1½"	В
21.	C – 15/32	Base Sheet One or more layers Firestone MB Base (Type G2), mechanically fastened or hot mopped Ply Sheet One or more layers Firestone Ply IV or Ply VI (Type G1) ply sheet, mechanically fastened or hot mopped Membrane One or more layers Firestone SBS Premium FR (modified bitumen), hot mopped or Firestone SBS FR Torch, heat fused	1/2"	В



UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
29.	C – 15/32	Base Sheet One or more layers Firestone MB Base (Type G2), mechanically fastened Cap Sheet One layer Firestone SBS Premium FR, (modified bitumen), hot mopped	1/2"	В
50.	C – 15/32	Insulation Firestone minimum ½" RESISTA or ½" ISOGARD HD Base Sheet Firestone BASEGARD SA sheet, self-adhered Membrane Firestone SBS Premium FR, SBS Glass FR, SBS Torch FR, SBS Glass FR Torch, SBS Premium FR Torch (modified bitumen), the membrane is either torched or mopped with hot asphalt to the base sheet	1/4"	В
56.	NC	Insulation ISO 95+ GL, RESISTA, ISOGARD HD, ISOGARD HD Composite, Wood Fiber Board, Dens Deck Prime or Securock Gypsum Fiber Board  Base Ply Firestone BASEGARD SA self-adhered  Cap Ply Firestone APP Premium FR, APP 180 FR	1½"	В
58.	NC	Insulation ISO 95+ GL, RESISTA, ISOGARD HD, ISOGARD HD Composite, Dens Deck Base Ply BASEGARD SA self-Adhered Inter-Ply APP 170, APP 160, or APP 80 Glass Base Cap Ply APP Premium FR, APP 180 FR	2"	В
59.	C – 15/32	Insulation (Optional) ISO 95+ GL, RESISTA  Barrier Board  1/4", 1/2" or 5%" thick Securock Glass-Mat Roof Board or Securock Gypsum- Fiber Roof Board, Georgia-Pacific Gypsum LLC DensDeck Prime or DensDeck, cover board may be hot mopped attached with insulation adhesive or mechanically fastened  Base Ply BASEGARD SA self-adhered  Inter-Ply APP 170, APP 160, or APP 80 Glass Base  Cap Ply APP Premium FR or APP 180 FR	2"	В



rully Adhered Systems – Class C								
UL Assembly Number	Deck	Roofing System	Maximum Slope	Class				
3.	C – 15/32	Base Sheet OCF No. 28 Perma ply hot mopped or nailed  Membrane Firestone APP 160, or Firestone APP 170 (modified bitumen), heat fused  Coating Western Colloid No. 298 Emulsion, applied at 1.5-gal², Fields Products No. F900, applied at 6 gal², Gibsonite Durakote No. 151, applied at 6 gal² or  Gibson-Homans No. 6192-900, applied at 5 to 7-gal²  Surfacing No. 11 roofing granules applied at 50 lb²	1"	С				
7.	NC	Insulation (Optional)  Any UL Classified, any thickness (EPS must be covered with ½" min wood fiber, glass fiber or perlite)  Base Sheet  Type G1, G2 or G3, or Firestone SBS Base Sheet or SBS Base P sheet, mechanically fastened or hot mopped  Ply Sheet (Optional)  One or more plies Firestone SBS Smooth, mechanically fastened or hot mopped  Membrane  Firestone SBS Cap, SBS Premium, hot mopped	Unlimited	С				
11.	C – 15/32	Insulation (Optional) Any UL Classified, any thickness Barrier Board  1/4" thick Georgia-Pacific Gypsum LLC DensDeck Roof Board or DensDeck DuraGuard Roof Board or DensDeck Prime Roof Board, mechanically fastened Base Sheet One ply Firestone SBS Premium Base Sheet or MB Base or Ply IV or Ply VI or SBS Base Sheet or SBS Base-P sheet fully adhered with Firestone Multi-Purpose MB Cold Adhesive at 1.5-gal/100 ft² Membrane One ply Firestone SBS Premium FR or SBS Premium FR cap sheet fully adhered with Firestone Multi-Purpose MB Cold Adhesive at 1.5-gal/100 ft²	Unlimited	С				
13.	C – 15/32	Base Sheet One or more plies, Firestone MB Base mechanically fastened or hot mopped Ply Sheet One or more plies Firestone SBS Base or SBS Base-P sheet hot mopped Membrane One or more plies Firestone SBS Cap, hot mopped	1"	С				



#### Maintenance and Repair Systems – Class A

#### General NOTE:

- Karnak No. 81 modified bitumen adhesive may be used as an alternate method of attachment for the modified bitumen membranes in the following systems. An additional ply Firestone APP 160, APP 160-P, APP 170 may be used in any APP modified bitumen system.
- Unless otherwise indicated, insulation and base sheets may be mechanically attached, hot mopped or attached with cold application adhesive as Listed under Adhesive, Roof Construction Materials, in any system incorporating modified bitumen.
- Firestone MB Base or APP 80 Glass Base is an acceptable substitute and may be used in any assembly which utilizes Type G1, G2, OCF No. 28, Johns Manville No. 28 GlasBase, Bird CRS base sheet or GAF GAFGLAS base sheets.
- APP 180 is an acceptable alternative to APP 160 or APP 170 in all applicable systems.
- Firestone Ply IV or Ply VI are acceptable alternates in all systems where a Type G1 ply sheet is indicated.

UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
Class A, B or C (gravel may be assessing Roce and Class A, B or C).  Type G1, G2 or G3 (granular surfacts attach a		Existing Roof System Class A, B or C (gravel may be removed) covered with:  Base Sheet  Type G1, G2 or G3 (granular surfaced, inverted), mechanically attached  Membrane  Firestone APP 160 or Firestone APP 170 (modified bitumen), heat fused  Surfacing  Firestone Aluminum Fibered Roof Coating, 1.5- gal² or Karnak Chemical No. 97 or 169 Aluminum Coating applied at 1 gal² or No. 97  AF, applied at 1.5-gal² (optional), gravel	1"	А
2.	Existing Roof System Class A covered with:  Ply Sheet: OCF No. 11 or 28 base or ply sheet  Membrane  Firestone APP 160 or Firestone APP 170 (modified bitumen), heat fused Surfacing  Firestone Aluminum Fibered Roof Coating, 1½ gal² or Karnak Chemical No. 97, applied at 1-gal² No. 97 AF, applied at 1.5-gal² or Western Colloid No. 298 Emulsion, applied at 2-gal², with #11 Mineral Granules		1/2"	А
3.	NC	embedded into the wet top coat at 50 lb²  Existing Roof System  Class A, B or C. (Gravel may be removed) covered with:  Insulation (Optional)  Perlite, glass fiber, wood fiber, isocyanurate, urethane or composite, any thickness  Base Sheet  Type G1, G2 or G3, hot mopped or mechanically attached Membrane: Firestone APP 160 or Firestone APP 170 (modified bitumen), heat fused  Surfacing  Firestone Aluminum Fibered Roof Coating, 1.5-gal² or Karnak Chemical No. 97 or No. 169, applied at 1-gal² or No. 97 A", applied at 1.5-gal²	1"	А



# Maintenance and Repair Systems - Class A

UL Assembly	Deck	Roofing System	Maximum	Class
Number	Deck	Rooming System	Slope	Class
4.	Existing Roof System Class A, B or C covered with:		1"	А
9.	NC	Existing Roof System Class A, B or C (gravel may be removed) covered with:  Base Sheet Type G1, G2 or G3 (granular surfaced, inverted), mechanically attached  Membrane Firestone APP 180 FR (modified bitumen), heat fused	1"	А
10. C – 15/32		Existing Roof System Class A covered with: Ply Sheet OCF No. 11 or 28 base or ply sheet Membrane Firestone APP 180 FR (modified bitumen), heat fused	1/2"	А
11.	NC	Existing Roof System Class A, B or C. (Gravel may be removed) covered with:  Insulation (Optional) Perlite, glass fiber, wood fiber, isocyanurate, urethane or composite, any thickness  Base Sheet Type G1, G2 or G3, hot mopped or mechanically attached  Membrane Firestone APP 180 FR (modified bitumen), heat fused	1"	А
12.	NC	Existing Roof System Class A, B or C covered with:  Base Sheet (Optional)  Type G1 or G2  Membrane  One layer Firestone SBS Metal Flash-AL (modified bitumen), hot mopped	Unlimited	Α



# Maintenance and Repair Systems - Class A

UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
13.	NC	Existing Roof System Class A, B or C covered with:  Base Sheet (Optional)  Type G1 or G2  Membrane  One layer Firestone SBS Metal Flash-AL (modified bitumen), hot mopped	1"	A
17.	NC	Existing Roof System Class A, B or C BUR (gravel may be removed) covered with: Surfacing Two coats Industrial Aluminum Roof Coating at 1½ gal²/coat	1/2"	А
18.	NC	Two coats Industrial Aluminum Roof Coating at 1½ gal²/coat  Existing Roof System Class A, B or C BUR (gravel may be removed) covered with:  Base Coat Industrial Elastomeric White Roof Coating, Industrial Elastomeric Gray Roof Coating, Industrial Elastomeric Black Roof Coating, or Industrial Elastomeric Tan Roof Coating roof coating, 1.5-gal²  Surfacing Industrial Elastomeric White Roof Coating, Industrial Elastomeric Gray Roof Coating, Industrial Elastomeric Black Roof Coating, or Industrial Elastomeric Tan Roof Coating roof coating, 1.5-gal²		А

## Maintenance and Repair Systems - Class B

UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
1.	C – 15/32	Existing Roof System Class A, B or C covered with:  Insulation (Optional) Perlite, glass fiber, wood fiber, isocyanurate, Rhoflex Isocyanurate urethane or composite, any thickness  Base Sheet Two layers Johns Manville No. 28  Membrane Firestone APP 160 or Firestone APP 170 (modified bitumen), heat fused  Surfacing Firestone Aluminum Fibered Roof Coating, 1.5-gal², Karnak Chemical No. 97, applied at 1-gal² or No. 97 AF, applied at 1.5-gal²	1/2"	В



# Maintenance and Repair Systems – Class B

UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
2.	C – 15/32	Existing Roof System Class B covered with: Base Sheet (Optional) Type G1 or G2 Membrane Firestone APP 160 or Firestone APP 170 (modified bitumen), heat fused Surfacing Firestone Aluminum Fibered Roof Coating, 1.5-gal², Karnak Chemical No. 97 or No. 97AF, applied at 1-gal² or Western Colloid No. 298 Emulsion, applied at 2-gal², with #11 Mineral Granules applied into the wet coating at 50 lb²	1/2"	В
3.	C – 15/32	Existing Roof System Class A, B or C covered with:  Insulation One layer min 1" isocyanurate, or 11/16 glass fiber  Base Sheet One layer OCF or Johns Manville No. 28  Membrane Firestone APP 160 or Firestone APP 170 (modified bitumen), heat fused Surfacing Firestone Aluminum Fibered Roof Coating, 1.5-gal², Karnak Chemical No. 97, applied at 1 gal² or No. 97 AF, applied at 1.5 gal²	1/2"	В
4.	C – 15/32	Existing Roof System Class A, B or C covered with:  Insulation (Optional) Perlite, glass fiber, wood fiber, isocyanurate, urethane or composite, any thickness Base Sheet Two layers Johns Manville No. 28  Membrane Firestone APP 180 FR (modified bitumen), heat fused	1/2"	В
5.	C – 15/32	Existing Roof System Class B covered with: <u>Base Sheet (Optional)</u> Type G1 or G2 <u>Membrane</u> Firestone APP 180 FR (modified bitumen), heat fused	1/2"	В
6.	C – 15/32	Existing Roof System Class A, B or C covered with:  Insulation One layer min 1" isocyanurate, or 11/16 glass fiber  Base Sheet One layer Johns Manville No. 28  Membrane Firestone APP 180 FR (modified bitumen), heat fused	1/2"	В



#### Maintenance and Repair Systems - Class C

UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
1.	C – 15/32	Existing Roof System Class A, B or C covered with:  Insulation (Optional) Perlite or glass fiber, ¾ - 2" thick, adhesive as Listed under adhesives, Roof Deck Construction Materials Base Sheet (Optional) Type G1, G2 or G3  Membrane Firestone APP 160 or Firestone APP 170 (modified membrane), heat fused	1/4"	С
2.	C – 15/32	Existing Roof System Class A, B or C covered with: Insulation (Optional) Perlite or glass fiber, 2" max, mechanically fastened or hot mopped Base Sheet (Optional) Type G1 or G2, mechanically fastened or hot mopped Membrane Firestone APP 160, APP 160-P or Firestone APP 170 (modified bitumen), heat fused	1/4"	С
3. C – 15/32		Existing Roof System Class C covered with: <u>Membrane</u> Firestone APP 160 or Firestone APP 170 (modified bitumen), heat fused <u>Surfacing</u> Karnak Chemical No. 97, applied at 1-gal <sup>2</sup>	1/2"	С

# Maintenance and Repair Systems – Class A, B or C

UL Assembly Number	Deck	Roofing System	Maximum Slope	Class
4.	NC See Note 1	Insulation  Any UL Classified, any thickness, adhered with Firestone "I.S.O. Twin Pack  Membrane  Any UL Classified modified bitumen system, BUR system or CPE, CSM, CSPE, EPDM, NBP, PIB, PVC, TPO or TRE membrane system suitable for use with any roof insulation  NOTE 1: Classification (A, B or C) and maximum incline will be the same as that of the Classified Roofing System (TGFU) currently limited to noncombustible deck	See Note 1	A/B/C See Note 1



#### **UL Internal Fire Ratings**

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	Spray-Applied Resistive Material
P800 – P899	Spray-Applied Resistive Material
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. 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.

UL has indicated on page 8 of the 2008 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. Certified 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. When Polyisocyanurate insulation is used over concrete in D 900 Series Designs, the unrestrained beam rating shall be increased by a minimum of ½ hour."

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 Construction is similar to the Factory Mutual Class I internal fire (calorimeter) rating and they are deemed equivalent by the Model Building Code Agencies.



#### "P" Assemblies

Firestone's Asphalt Roofing Systems are classified for use in the following Hourly Roof / Ceiling Designs ("P" Designs).

P225, P230, P246, P259, P301, P302, P303, P508, P510, P514, P519, P560, P701, P710, P713, P717, P718, P719, P720, P722, P723, P727, P728, P729, P730, P732, P734, P735, P739, P741, P742, P745, P747, P750, P751, P753, P819, P824, P827, P828, P829, P909 & P911.

Consult Fire Resistance Ratings (BXUV) in the UL Fire Resistance Directory or contact your Technical Coordinator at 800-428-4511 for an acceptable insulation, thickness and additional requirements.

**NOTE:** The accepted insulation must be used in a UL Class A, B or C rated roofing assembly. UL acceptable system (e.g. adhering EPDM to Perlite or Fiberglas) listed for "P" design may not be approved for installation and warranty by Firestone. Contact Firestone Specifications and/or your Firestone Technical Coordinator concerning acceptance.

#### **Factory Mutual General Information**

Factory Mutual Class 1 Approvals cover a wide range of testing of roofing products, including tests for fire resistance, corrosion resistance, fuel contribution and hail damage, Factory Mutual Approvals are known best for the uplift resistance, 1-60, 1-90, etc. afforded by an FM Approved roofing assembly:

- FM 1-60 assemblies have been tested to withstand 60 psf air pressure applied for a period of one minute as well as one minute at the 30 and 45 psf levels.
- FM 1-90 assemblies have been tested to withstand 90 psf air pressure applied for a period of one minute as well as one minute at the 30, 45, 60 and 75 psf levels.
- Higher uplift ratings are possible based on the deck type and its attachment, fastener density and row spacing where applicable.

When Factory Mutual 1-60 or 1-90 uplift ratings are specified, additional insulation attachment and reduced perimeter and corner batten (in-seam plate or batten for Reinforced Systems) spacing will/may be required. Consult the current edition of Factory Mutual Loss Prevention Data Sheets 1-28 and 1-29 for instructions for determining the required corner and perimeter dimensions and reduced spacing and increased fastener densities.

#### **General Notations**

#### **PLEASE NOTE:**

Not all FM-rated assemblies that use Firestone roofing products are eligible for the Firestone Red Shield, Red Shield Medallion, or Platinum Warranty. The Firestone standards, guidelines, and specifications regarding roofing system components and attachment for the warranty desired must be followed.

RoofNav® assemblies are summarized in the following tables; however, an assembly search should be conducted to confirm the attachment rates and requirements set for in the approval number. In all occasions, should a discrepancy occur between this guide and RoofNav, the published information located in the approval at <a href="www.roofnav.com">www.roofnav.com</a> should be adhered and utilized. In all cases, when the project is Factory Mutual insured, please consult the FM agent assigned to the review of the project to ensure compliance.

Additionally, please be aware that the following assemblies typically are in reference to the field of the roof rating and attachment. Please refer to FM Global Loss Prevention Data Sheet 1-28 and 1-29 to determine the requirements for additional fastening requirements in the perimeter and corner.

The below stated assemblies may not be suitable for a Firestone Warranty. Prior to installation, contact a Firestone Representative for approval of assembly for warranty purposes.



It is acceptable to use multiple layers of FM Approved insulation, **mechanically secured through all layers**, and provided all the following are true:

- All layers are the same insulation;
- The total insulation thickness is not greater than the maximum FM Approved thickness of the insulation;
- The mechanical fastening and wind uplift rating are per the FM Approval of the top layer; and,
- The roof cover/insulation/fastener combination is FM Approved.

#### **Ground Roughness Definitions**

The descriptions below are based on information in ASCE 7. While information on this subject in the body of that standard is relatively brief, the designer must read the considerable additional information provided in the related commentary section of that document, particularly when then exposure is not obvious.

#### **Exposure Category B**

For Exposure Category B to be used:

- A. The exposing terrain should include urban and suburban areas, wooded areas, or other terrain with numerous closely spaced obstructions having the size of single-family dwellings or larger.
- B. Use of this exposure category should be limited to those areas for which the above terrain prevails in all directions for a distance of at least 2600' (800 m) or 20 times the height of the building or other structure, whichever is greater.
- C. Limited openings in this terrain, such as small parking lots, roads, road intersections, playing fields, underdeveloped lots, and tree clearings can be tolerated. For openings that exceed 600' (180 m) in total length measured radially from the building and 165' (50 m) in width, use surface roughness exposure C.
- D. For buildings whose height is less than or equal to 30' (9.1 m), the prevailing exposure B distance may be reduced to 1500' (460 m).
- E. In cases where the difference between exposures B and C is not obvious, use exposure C.

#### **Exposure Category C**

**NOTE:** In cases where the difference between exposure B and C is not obvious, use exposure C. For Exposure Category C to be used:

- A. The exposing terrain should be open with scattered obstructions having heights generally less than 30' (9 m), such as flat, open country and grasslands, and in all cases where exposures B and D do not apply.
- B. This also includes where surface roughness exposure B terrain is interrupted by clearings (parking lots, wide roads, road intersections, playing fields, underdeveloped lots, tree clearings, etc.) of greater than 600' (180 m) in total length measured radially from the building and exceeding 165' (50 m) in width.

#### Exposure Category D

**NOTE:** Some examples of D exposures include inland waterways, the Great Lakes, and coastal areas.

See fig. 3.2.2.3 in FM Global LPDA 1-28 for examples of Exposure D requirements.

For Exposure Category D to be used in determining the design wind pressure, all the following must be met:

- A. The terrain upwind of the structure must be flat, unobstructed areas or water surfaces including smooth mud flats, salt flats, and unbroken ice and is present in the upwind direction for a distance greater than approximately 5000' (1500 m) or 20 times the building height, and
- B. The building must be within the greater of 600' (180 m) or 20 times the building or structure height from the terrain (see Fig. 3.2.2.3), even if the terrain between the building and the terrain described in A. above would otherwise be considered B or C.

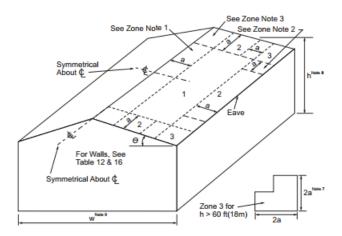


#### Field/Corner/Perimeter Definitions

The following diagram is direct form the FM Global Property Lost Prevention Data Sheet 1-28.

This outlines how to calculate your perimeter and corner areas based on the building size and relative conditions.

Table 6. Roof Design Outward Pressure Multipliers for Roof Zones 1, 2, and 3



Roof Design Negative Pressure Multipliers Zones 1, 2, 3 for Flat and Gabled Roofs								
Apply multipliers to pressure values in Tables 3, 4, and 5, as appropriate.								
Mean Roof Height, h	Roof Slope	En	closed Build	ling	Partially	Enclosed E	Building <sup>6</sup>	
		Zone 1	Zone 2	Zone 3	Zone 1	Zone 2	Zone 3	
h ≤ 60 ft (18 m); and when	Θ ≤ 7°	1.0	1.68	2.53	1.31	1.99	2.85	
h/w ≤ 1 for 60 < h < 90 ft (18	7° < Θ ≤ 27°	0.92	1.59	2.36	1.23	1.91	2.67	
< h < 27.4 m)	27° < Θ ≤ 45°	1.0	1.17	1.17	1.31	1.48	1.48	
when h/w > 1 for 60 ft < h <	Θ ≤ 10°	1.34	2.10	2.86	1.65	2.42	3.18	
90 ft (18 < h < 27.4 m)	10° < Θ ≤ 27°	0.92	1.59	2.36	1.23	1.91	2.67	
See Note 6 below	27° < Θ ≤ 45°	1.0	1.17	1.17	1.31	1.48	1.48	
h ≥ 90 ft (27.4 m)	Θ ≤ 10°	1.0	1.57	2.14	1.23	1.80	2.37	
See Note 6 below	10° < Θ ≤ 27°	0.68	1.19	1.76	0.92	1.42	1.99	
	27° < Θ ≤ 45°	0.75	0.87	0.87	0.98	1.11	1.11	

- Zone Notes: 1. Zone 1 except Zone 2 if  $\Theta$  > 7°.
  2. Zone 2 except Zone 3 if  $\Theta$  < 7° and h > 60 ft (18 m).
  3. Zone 2 except Zone 3 if  $\Theta$  > 7° and h > 60 ft (18 m).
  4. If a parapet height > 3 ft (1 m) is provided around the perimeter of the roof with  $\Theta$  < 7° for h < 60 ft (18 m) and  $\Theta$  < 10° for h > 60 ft (18 m), treat Zone 3 as Zone 2.
  5.  $7^\circ$  = 1½ in./12 in. (125 mm/m); 10° = 2 in./12 in. (167 mm/m); 27° = 6 in./12 in. (500 mm/m); 45° = 12 in./12 in. (1 m/m).
  6. Partially enclosed building multipliers for roofs are based only on openings affecting the top story.

  - 7. Value of "a":
    - a) For h ≤ 60 ft (18 m), "a" is the smaller of 0.1 times the building lesser plan dimension or 0.4 times h, and never less than 4% of the least horizontal dimension, or 3 ft (0.9 m). Zone 3 is a square with dimensions "a".
      b) For h > 60 ft (18 m), "a" is 0.1 times the building lesser plan dimension, but not less than 3 ft (0.9 m). Zone 3 is an ell with dimensions "2a".

  - with unretratures ∠a. .

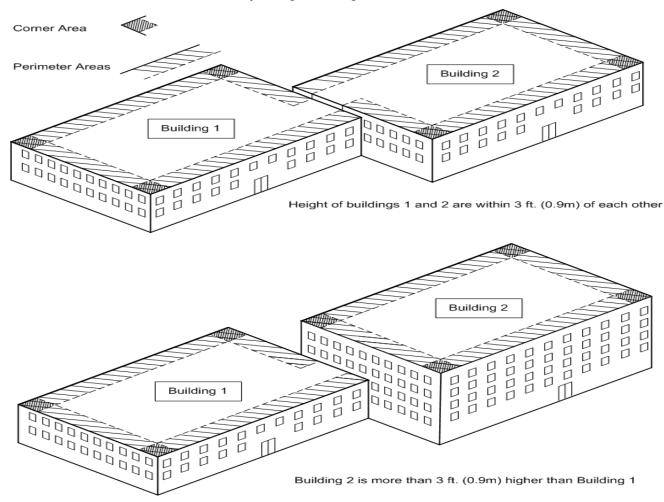
    8. Value of "h":

    a) For slopes ≤ 10°, h = eave height
    b) For slopes > 10°, h = mean roof height
    9. Value of "w" is based on the lesser plan dimension.

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#### Perimeter and Corner Treatment of Adjoining Buildings



#### Prescriptive Enhancement Options: Perimeter and Corner

The following information has been referenced from Factory Mutual Loss Prevention Data Sheets 1-29.

- 2.2.10.1.1 Provide one of the following options to secure the roof perimeter and corners (Zones 2 and 3):
  - A. Use a roof system with an FM Approval wind uplift rating that is acceptable for the field, perimeter, and corners per the Ratings Calculator of RoofNav or DS 1-28. That could entail using a system throughout the entire roof that had a wind rating adequate for the corners, or using a system that has a varied fastener spacing and multiple wind ratings that are adequate for the field, perimeter, and corner areas.
  - B. Use the appropriate prescriptive recommendation noted in FM LPDS 1-29 Section 2.2.10.1.2.

In either case, ensure any whole or partial insulation board or roof cover/base sheet width (when the roll is parallel to the building edge) that falls within the calculated perimeter or corner has the increased securement applied over the entire board or roof cover/base sheet width.

- 2.2.10.1.2 Use prescriptive enhancements for perimeter and corner areas (for all deck types) where roof covers are adhered to some combination of insulation or cover board if one of the following conditions applies:
  - A. The recommended field-of-roof rating needed per DS 1-28 in any location does not exceed Class 1-75 (3.6 kPa),
  - B. The building is in a non-hurricane-prone region (see Appendix A) and the recommended field-of-roof rating per DS 1-28 does not exceed Class 1-90 (4.3 kPa).



2.2.10.1.2.1 For either of the above conditions, increase the securement over the FM Approved field-of-roof spacing as follows:

- F. For assemblies using insulation fasteners, increase the number of fasteners per board by:
  - 1. 50% minimum in the roof perimeter, but at least one fastener per 2 ft² (1 per 0.19 m²). It is not necessary to install fasteners closer than one per 1 ft² (1 per 0.09 m²).
  - 2. One fastener per 1 ft<sup>2</sup> (1 per 0.09 m<sup>2</sup>) in corner areas.
  - 3. Round up to the next whole number of fasteners, if necessary
- G. For components adhered with adhesives applied in ribbons, spots, etc., reduce the spacing between ribbons or spots over the FM Approved spacing for the given wind rating as noted below (round down to a dimension that is practical with respect to board sizes, applicators, etc.):
  - 1. In the roof perimeter, not more than 60% of the field-of-roof spacing between rows, or area Roof Deck Securement and Above-Deck Roof Components 1-29 FM Global Property Loss Prevention Data Sheets Page 21 ©2016 Factory Mutual Insurance Company. All rights reserved.
  - 2. In the roof corners, not more than 40% of the field-of-roof spacing between rows, or area

**NOTE:** If the FM Approval wind rating already meets the higher criteria for the perimeter or corner area, no further reduction is needed in those areas.

Prescriptive Enhancement Examples. Actual fastening rates may vary.

Field	Perimeters	Corners
8	16	32
10	15	32
12	18	32
15	24	32

Field	Perimeters	Corners
16	24	32
18	28	32
20	30	32

#### **Base Sheet Attachment**

The attachment patterns listed below are recommended for base sheet securement when installed below Firestone Building Products approved systems. Other factors may require additional/different attachment rates.

Peak Gust Wind	Regional Wind Speed							
Speed	Up to 110 mph			110-120 mph				
Coverage	Lap	Field/Perimeter	Corner	Lap	Field/Perimeter	Corner		
55 mph	35"	2 Rows,	3 Rows,	35"	2 Rows,	3 Rows,		
	Rows,	12" o.c. Staggered	Equally Spaced,	Rows,	12" o.c. Staggered,	Equally Spaced,		
	9" o.c.	18" o.c. spacing	16" o.c. spacing	9" o.c.	16" o.c. spacing	14" o.c. spacing		
72-80 mph	35"	2 Rows,	3 Rows,	35"	2 Rows,	3 Rows,		
	Rows,	12" o.c. Staggered	Equally Spaced,	Rows,	12" o.c. Staggered,	Equally Spaced,		
	8" o.c.	17" o.c. spacing	15" o.c. spacing	8" o.c.	14" o.c. spacing	12" o.c. spacing		
90 mph	35"	2 Rows,	3 Rows,	35"	2 Rows,	3 Rows,		
	Rows,	12" o.c. Staggered	Equally Spaced,	Rows,	12" o.c. Staggered,	Equally Spaced,		
	7" o.c.	16" o.c. spacing	14" o.c. spacing	7" o.c.	12" o.c. spacing	10" o.c. spacing		

#### NOTE:

- Wind speeds over 80 mph require the use of 60-80 mil membranes.
- FM Insured or other code/testing agencies may require different/additional attachment methods/rate.
- Firestone 1.7" LWC Base Ply Fasteners Pull out value minimum 40 lb/fastener.
- Minimum 2" thick LWC required.
- For <u>Cellular Light Weight Concrete</u> decks that are properly prepared and dry, Firestone does not require a vapor retarder, however one is recommended, if insulation is installed with the system.



## SBS – 2 Ply – Hot Asphalt – Cover Board/Insulation Attached – Steel Deck

Uplift	Deck Type	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
60 IF: 1 EF: A <u>Slope:</u> 1"	<u>Steel:</u> 22-16 ga 33 ksi 72" span	None	Cover Board:  1/4" min., 4' x 8' boards DensDeck DensDeck Prime Securock  Insulation: 11/2"-12" ISO 95+ GL or 1" min., Structodek HD	Cover Board: Firestone HD Fasteners, 16 per 4' x 8' board Insulation: Loose Laid	Cap Ply: SBS FR SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Base Sheet: MB Base SBS Base SBS Premium Base Optional: Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat	<u>Cap:</u> Hot Asphalt <u>Base:</u> Hot Asphalt	177946- 48585-0
60 IF: 1 EF: A Slope: 1"	<u>Steel:</u> 22-16 ga 33 ksi 72" span	None	Cover Board: 1/4" min., 4' x 8' boards DensDeck DensDeck Prime Securock  Insulation: 11/2"-12", ISO 95+ GL or 1" min., Structodek HD	Cover Board: Firestone HD Fasteners, 16 per 4' x 8' board  Insulation: Loose Laid	Cap Ply: SBS FR SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Base Sheet: SBS Base SBS Smooth Optional: Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat	<u>Cap:</u> Hot Asphalt <u>Base:</u> Hot Asphalt	177946- 48979-0
90 IF: 1 EF: A Slope: 1"	<u>Steel:</u> 22-16 ga 33 ksi 72" span	Vapor Barrier (Optional):  4-6 mil poly  V-Force (SA) 1/4" min. DensDeck  SA Primer may be required.	Cover Board: 3/4" min. Perlite  Insulation: 2.2"-12", ISO 95+ GL	Cover Board: Firestone HD Fasteners, 16 per 4' x 8' board  Insulation: Loose Laid	Cap Ply: SBS FR SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Base Sheet: MB Base SBS Base SBS Premium Base Optional: Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat	<u>Cap:</u> Hot Asphalt <u>Base:</u> Hot Asphalt	62004- 48585-0
90 IF: 1 EF: A <u>Slope:</u> 1"	<u>Steel:</u> 22-16 ga 33 ksi 72" span	Vapor Barrier (Optional): 4-6 mil poly or V-Force (SA) ½" min. DensDeck SA Primer may be required.	Cover Board: 1/4" min., 4' x 8' boards DensDeck Securock  Insulation: 2.2"-12", ISO 95+ GL	Cover Board: Firestone HD Fasteners, 16 per 4' x 8' board  Insulation: Loose Laid	Cap Ply: SBS FR SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Base Sheet: MB Base SBS Base SBS Premium Base Optional: Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat	<u>Cap:</u> Hot Asphalt <u>Base:</u> Hot Asphalt	169823- 169787-0



SBS – 2 Ply – Hot Asphalt – Cover Board/Insulation Attached – Steel Deck

Uplift	Deck Type	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
90 IF: 1 EF: A <u>Slope:</u> 1"	<u>Steel:</u> 22-16 ga 33 ksi 72" span	Vapor Barrier:  V-Force (SA) '¼" min. DensDeck Securock  4' x 8' boards Min. 8 HD fasteners per board.	Cover Board: 1/2" min., 4' x 8' boards DensDeck Securock  Insulation: 11/2"-4", ISO 95+ GL	Cover Board: 4'x4' boards Adhered with: ISO Stick 12" o.c. beads  Insulation: 4'x4' boards Adhered with: ISO Spray R ISO Twin Pack ISO Stick 12" o.c. beads	Cap Ply: SBS FR SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Base Sheet: SBS Base SBS Premium Base SBS Premium Base SBS Smooth Optional: Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat	<u>Cap:</u> Hot Asphalt <u>Base:</u> Hot Asphalt	298797- 48625-0
105 IF: 1 EF: A Slope: ½"	Steel (WR): 22-18 ga 33 ksi 72" span	Vapor Barrier (Optional):  4-6 mil poly or V-Force (SA) ¼" min. DensDeck SA Primer may be required.	Cover Board: 1/2" min., 4' x 8' boards DensDeck Prime  Insulation: 2"-12", ISO 95+ GL or RESISTA	Cover Board: Firestone HD Fasteners, 18 per 4' x 8' board  Insulation: Loose Laid	Cap Ply: SBS FR SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Base Sheet: MB Base SBS Base SBS Poly Base SBS Premium Base SBS Premium Poly Base SBS Smooth	<u>Cap:</u> Hot Asphalt <u>Base:</u> Hot Asphalt	394249- 394202-0
135 IF: 1 EF: A <u>Slope:</u> ½"	Steel (WR): 22-18 ga 33 ksi 72" span	Vapor Barrier (Optional):  4-6 mil poly or V-Force (SA) ¼" min. DensDeck  SA Primer may be required.	Cover Board: 1/2" min., 4' x 8' boards DensDeck Prime  Insulation: 2"-12", ISO 95+ GL or RESISTA	Cover Board: Firestone HD Fasteners, 18 per 4' x 8' board Insulation: Loose Laid	Cap Ply: SBS FR SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Base Sheet: MB Base SBS Base SBS Poly Base SBS Premium Base SBS Premium Poly Base SBS Smooth	Cap: Hot Asphalt Base: Hot Asphalt	395174- 394202-0
150 IF: 1 EF: A <u>Slope:</u> ½"	Steel (WR): 22-18 ga 33 ksi 72" span	Vapor Barrier (Optional):  4-6 mil poly OR V-Force (SA) 1/4" min. DensDeck SA Primer may be required.	Cover Board: ½" min., 4' x 8' boards DensDeck Prime  Insulation: 2"-12", ISO 95+ GL or RESISTA	Cover Board: Firestone HD Fasteners, 18 per 4' x 8' board  Insulation: Loose Laid	Cap Ply: SBS FR SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Base Sheet: MB Base SBS Base SBS Poly Base SBS Premium Base SBS Premium Poly Base SBS Smooth	Cap: Hot Asphalt Base: Hot Asphalt	395175- 394202-0



SBS – 2 Ply – Hot Asphalt – Cover Board/Insulation Attached – Steel Deck

<u> 282 -</u>	– <u> </u>		Cover Board/in	sulation Attac	hed – Steel Deck		
Uplift	Deck Type	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
165 IF: 1 EF: A Slope: 1"	Steel (WR): 22-18 ga 33 ksi 72" span	Vapor Barrier (Optional): 4-6 mil poly  Thermal Barrier (Optional): ½" min. DensDeck	Cover Board: 1/2" min., 4' x 8' boards Securock Insulation: 1.1/2"-12", ISO 95+ GL or RESISTA	Cover Board: Firestone HD Fasteners, 22 per 4' x 8' board  Insulation: Loose Laid	Cap Ply: SBS FR SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Base Sheet: MB Base SBS Base SBS Poly Base SBS Premium Base SBS Smooth	<u>Cap:</u> Hot Asphalt <u>Base:</u> Hot Asphalt	353705- 345379-0
180 IF: 1 EF: A Slope: 1"	Steel (WR): 22-18 ga 80 ksi 72" span	Vapor Barrier (Optional): 4-6 mil poly  Thermal Barrier (Optional): 1/4" min. DensDeck	Cover Board: 1/2" min., 4' x 8' boards Securock  Insulation: 1.5"-12", ISO 95+ GL or RESISTA	Cover Board: Firestone HD Fasteners, 22 per 4' x 8' board  Insulation: Loose Laid	Cap Ply: SBS FR SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Base Sheet: MB Base SBS Base SBS Poly Base SBS Premium Base SBS Smooth	<u>Cap:</u> Hot Asphalt <u>Base:</u> Hot Asphalt	353707- 345379-0
195 IF: 1 EF: A Slope: ½"	Steel (WR): 22-18 ga 80 ksi 72" span	Vapor Barrier (Optional): V-Force (SA) ½" min. DensDeck SA Primer may be required.	Cover Board: 1/2" min., 4' x 8' boards DensDeck Prime or Securock  Insulation: 2"-12", ISO 95+ GL or RESISTA	Cover Board: Firestone HD Fasteners, 24 per 4' x 8' board  Insulation: Loose Laid	Cap Ply: SBS FR SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Base Sheet: MB Base SBS Base SBS Poly Base SBS Premium Base SBS Premium Poly Base SBS Smooth	<u>Cap:</u> Hot Asphalt <u>Base:</u> Hot Asphalt	390822- 389938-0
315 IF: 1 EF: A <u>Slope:</u> ½"	Steel (WR): 18 ga,33 ksi 68" span 20 ga,58 ksi 68" span 22 ga,33 ksi 52" span 22-18 ga 80 ksi 71" span 20-18 ga 80 ksi 72" span	Vapor Barrier (Optional):  4-6 mil poly or V-Force (SA) ½" min. DensDeck  SA Primer may be required.	Cover Board: 1/2" min., 4' x 8' boards DensDeck Prime  Insulation: 2.2"-12", ISO 95+ GL or RESISTA	Cover Board: Firestone HD Fasteners, 32 per 4' x 8' board  Insulation: Loose Laid	Cap Ply: SBS FR SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Base Sheet: MB Base SBS Base SBS Poly Base SBS Premium Base	<u>Cap:</u> Hot Asphalt <u>Base:</u> Hot Asphalt	395177- 394203-0



## SBS – 2 Ply – Hot Asphalt – Cover Board/Insulation Attached – Steel Deck

Uplift	Deck Type	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
315 IF: 1 EF: A Slope: ½" Hail: SH	Steel (WR): 18 ga,33 ksi 68" span 20 ga,58 ksi 68" span 22 ga,33 ksi 52" span 22-18 ga 80 ksi 71" span 20-18 ga 80 ksi 72" span	Vapor Barrier: V-Force(SA) Primer  Thermal Barrier: ½" min., 4' x 8' boards, DensDeck	Cover Board: 1/2" min., 4' x 8' boards DensDeck Prime  Insulation: 2.2"-24", ISO 95+ GL or RESISTA	Cover Board: Firestone HD Fasteners, 32 per 4' x 8' board  Insulation: Loose Laid	Cap Ply: SBS FR SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite  Base Sheet: MB Base SBS Base SBS Poly Base SBS Premium Base	<u>Cap:</u> Hot Asphalt <u>Base:</u> Hot Asphalt	419044- 394203-0

# SBS - 3 Ply - Hot Asphalt - Cover Board/Insulation Attached - Steel Deck

Uplift	Deck Type	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
90 IF: 1 EF: A Slope: ½" Hail: SH	<u>Steel:</u> 22-16 ga 33 ksi 72" span	Vapor Barrier (Optional):  4-6 mil poly OR V-Force (SA) ½" min. DensDeck SA Primer may be required.	Cover Board: 1/4" min., 4' x 8' boards DensDeck or DensDeck Prime Insulation: 1.5"-12", ISO 95+ GL or 1" min. Structodek HD	Cover Board: Firestone HD Fasteners, 18 per 4' x 8' board  Insulation: Loose Laid	Cap Ply: SBS FR SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Inner Ply: (1) Type IV or VI SBS Base SBS Smooth Base Sheet: MB Base SBS Premium Base SBS Premium Base Optional: Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat	Cap: Hot Asphalt Inner Ply: Hot Asphalt Base: Hot Asphalt	177408- 48582-0
105 IF: 1 EF: A Slope: ½"	Steel (WR): 22-16 ga 33 ksi 72" span	Vapor Barrier (Optional):  4-6 mil poly OR V-Force (SA) 1/4" min. DensDeck SA Primer may be required.	Cover Board: 1/4" min., 4' x 8' boards DensDeck Prime Insulation: 2"-12", ISO 95+ GL or RESISTA	Cover Board: Firestone HD Fasteners, 18 per 4' x 8' board  Insulation: Loose Laid	Cap Ply: SBS FR SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Inner Ply: MB Base, SBS Base SBS Poly Base SBS Premium Poly Base SBS Premium Poly Base SBS Smooth Base Sheet: MB Base, SBS Base SBS Premium Base SBS Premium Poly Base SBS Premium Base SBS Poly Base SBS Premium Base SBS Premium Base SBS Premium Poly Base SBS Premium Poly Base	Cap: Hot Asphalt Inner Ply: Hot Asphalt Base: Hot Asphalt	394249- 394006-0



SBS - 3 Ply - Hot Asphalt - Cover Board/Insulation Attached - Steel Deck

		Vapor Barrier/	Cover Board/	Cover Board/	hed – Steel Deck	Membrane	RoofNav
Uplift	Deck Type	Thermal Barrier	Insulation	Insulation Attachment	Membrane Options	Attachment	Number
135 IF: 1 EF: A <u>Slope:</u> ½"	Steel (WR): 22-18 ga 33 ksi 72" span	Vapor Barrier (Optional): 4-6 mil poly OR V-Force (SA) ½" min. DensDeck SA Primer may be required.	Cover Board: 1/2" min., 4' x 8' boards DensDeck Prime Insulation: 2"-12", ISO 95+ GL or RESISTA	Cover Board: Firestone HD Fasteners, 18 per 4' x 8' board  Insulation: Loose Laid	Cap Ply: SBS FR SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Inner Ply: MB Base, SBS Base SBS Poly Base SBS Premium Base SBS Premium Poly Base SBS Smooth Base Sheet: MB Base, SBS Base SBS Premium Base SBS Premium Base SBS Premium Base SBS Fremium Base SBS Poly Base SBS Premium Base SBS Premium Poly Base SBS Premium Poly Base	<u>Cap:</u> Hot Asphalt <u>Inner Ply:</u> Hot Asphalt <u>Base:</u> Hot Asphalt	395174- 394006-0
150 IF: 1 EF: A Slope: ½"	Steel (WR): 22-18 ga 33 ksi 72" span	Vapor Barrier (Optional):  4-6 mil poly OR V-Force (SA) ½" min. DensDeck SA Primer may be required.	Cover Board: 1/2" min., 4' x 8' boards DensDeck Prime  Insulation: 2"-12", ISO 95+ GL or RESISTA	Cover Board: Firestone HD Fasteners, 20 per 4' x 8' board  Insulation: Loose Laid	Cap Ply: SBS FR SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Inner Ply: MB Base, SBS Base SBS Poly Base SBS Premium Base SBS Premium Poly Base SBS Premium Poly Base SBS Smooth Base Sheet: MB Base, SBS Base SBS Premium Poly Base SBS Premium Poly Base	<u>Cap:</u> Hot Asphalt <u>Inner Ply:</u> Hot Asphalt <u>Base:</u> Hot Asphalt	395175- 394006-0
195 IF: 1 EF: A <u>Slope:</u> ½"	Steel (WR): 22-18 ga 80 ksi 72" span	Vapor Barrier (Optional): V-Force (SA) ½" min. DensDeck SA Primer may be required.	Cover Board: 1/2" min., 4' x 8' boards DensDeck Prime OR Securock Insulation: 2"-12", ISO 95+ GL or RESISTA	Cover Board: Firestone HD Fasteners, 24 per 4' x 8' board  Insulation: Loose Laid	Cap Ply: SBS FR SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Inner Ply: MB Base, SBS Base SBS Poly Base SBS Premium Poly Base SBS Premium Poly Base SBS Smooth Base Sheet: MB Base, SBS Base SBS Poly Base SBS Premium Base SBS Premium Base SBS Poly Base SBS Premium Base SBS Premium Base SBS Premium Base SBS Premium Poly Base SBS Premium Poly Base SBS SBS Smooth	Hot Asphalt Inner Ply: Hot Asphalt Base: Hot Asphalt	390822- 389940-0



## SBS – 3 Ply – Hot Asphalt – Cover Board/Insulation Attached – Steel Deck

Uplift	Deck Type	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
315 IF: 1 EF: A Slope: ½"	Steel (WR): 18 ga,33 ksi 68" span 20 ga,58 ksi 68" span 22 ga,33 ksi 52" span  22-18 ga 80 ksi 71" span  20-18 ga 80 ksi 72" span	Vapor Barrier (Optional): 4-6 mil poly or V-Force (SA) ½" min. DensDeck SA Primer may be required.	Cover Board: 1/2" min., 4' x 8' boards DensDeck Prime  Insulation: 2.2"-12", ISO 95+ GL or RESISTA	Cover Board: Firestone HD Fasteners, 32 per 4' x 8' board  Insulation: Loose Laid	Cap Ply: SBS FR SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Inner Ply: MB Base, SBS Base SBS Premium Base SBS Premium Poly Base Base Sheet: MB Base, SBS Base SBS Premium Poly Base SBS Premium Base SBS Premium Base SBS Poly Base SBS Premium Base SBS Premium Base	Cap Ply: Hot Asphalt Inner Ply: Hot Asphalt Base: Hot Asphalt	395177- 394201-0

## SBS - 2 Ply - Hot Asphalt - Cover Board - Adhered/Insulation - Attached - Steel Deck

Uplift	Deck Type	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
90 IF: 1 EF: A <u>Slope:</u> 1"	<u>Steel:</u> 22 ga 33 ksi 72" span	Thermal Barrier (Optional): 5%" min., 4' x 8' boards DensDeck DensDeck Prime Securock	Cover Board: 1/4" min., 4' x 8' boards DensDeck DensDeck Prime Securock  Insulation: 2.2"-12", min. 4' x 4' boards ISO 95+ GL	Cover Board: Hot Asphalt  Insulation: Firestone HD Fasteners, 8 per 4' x 8' board	Cap Ply: SBS FR Cap SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Base Sheet: SBS Base SBS Premium Base SBS Smooth Optional: Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat	<u>Cap Ply:</u> Hot Asphalt <u>Base Ply:</u> Hot Asphalt	62058- 48625-0
90 IF: NC EF: A <u>Slope:</u> 1"	Structural Concrete: 2,500 psi min. 2" thick min.	Thermal Barrier (Optional): 5%" min., 4' x 8' boards DensDeck DensDeck Prime Securock  Vapor Barrier – Against Deck (Optional): V-Force (SA), primer may be required SBS Torch	Cover Board:  '/" min., 4' x 4' boards DensDeck DensDeck Prime Securock  Insulation: 1.5"-4", min. 4' x 4' boards ISO 95+ GL	Cover Board: Hot Asphalt  Insulation: Firestone HD Fasteners, 10 per 4' x 8' board	Cap Ply: SBS FR Cap SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR SBS Premium FR SBS Premium FR UltraWhite Base Sheet: SBS Base SBS Premium Base SBS Smooth Optional: Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat	Cap Ply: Hot Asphalt Base Ply: Hot Asphalt	62059- 48625-0



## SBS – 2 Ply – Hot Asphalt – Cover Board/Insulation Adhered – Thermal Attached – Concrete Deck

Uplift	Deck Type	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
90 IF: NC EF: A <u>Slope:</u> 1"	Structural Concrete: 2,500 psi min. 2" thick min.	Vapor Barrier: V-Force (SA), Permeable Primer Thermal Barrier: ½" min., 4' x 8' boards DensDeck DensDeck Prime Securock Secured with min. 8 fasteners per board Concrete Drive Firestone HD	Cover Board:  1/4" min., 4' x 4' boards DensDeck DensDeck Prime Securock  Insulation: 1.5"-4", min. 4' x 4' boards ISO 95+ GL	Cover Board: 12" o.c. bead spacing ISO Spray R ISO Twin Pack ISO Stick  Insulation: 12" o.c. bead spacing ISO Spray R ISO Spray R ISO Twin Pack ISO Stick	Cap Ply: SBS FR Cap SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Base Sheet: SBS Base SBS Premium Base SBS Smooth Optional: Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat	<u>Cap Ply:</u> Hot Asphalt <u>Base Ply:</u> Hot Asphalt	298776- 48625-0

## SBS – 2 Ply – Hot Asphalt – Cover Board/Insulation Adhered – Concrete Deck

Uplift	Deck Type	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
240 IF: NC EF: A Slope: 1"	Structural <u>Concrete:</u> 2,500 psi min. 2" thick min.	None	Cover Board:  1/4" min., 4' x 4' boards DensDeck DensDeck Prime Securock  Insulation (Top Layer):  1/2"-4" Tapered. 4' x 4' boards ISO 95+ GL Insulation (Bottom Layer):  1.5"-36", min. 4' x 4' boards ISO 95+ GL	Cover Board: Hot Asphalt  Insulation (Top): Hot Asphalt  Insulation (Bottom): Hot Asphalt	Cap Ply: SBS FR Cap SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Base Sheet: MB Base, SBS Base SBS Premium Base	<u>Cap Ply:</u> Hot Asphalt <u>Base Ply:</u> Hot Asphalt	283578- 283575- 0
525  IF: NC EF: A Slope: 1"	Structural Concrete:  2,500 psi min. 2" thick min.  Primer (Optional): Asphaltic	None	Cover Board:  1/4" min., 4' x 4' boards DensDeck Securock  Insulation: 1.5"-36", 4'x4' boards ISO 95+ GL	<u>Cover Board:</u> Hot Asphalt <u>Insulation:</u> Hot Asphalt	Cap Ply: SBS FR Cap SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Base Sheet: MB Base, SBS Base SBS Poly Base SBS Premium Base SBS Smooth	<u>Cap Ply:</u> Hot Asphalt <u>Base Ply:</u> Hot Asphalt	384506- 384500- 0



## SBS – 2 Ply – Hot Asphalt – Cover Board/Insulation Adhered – Concrete Deck

Uplift	Deck Type	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
525  IF: NC EF: C Slope: 5"	Structural Concrete:  2,500 psi min. 2" thick min.  Primer (Optional): Asphaltic	None	Cover Board:  1/4" min., 4' x 4' boards DensDeck Prime  Insulation: 1.5"-36", min. 4' x 4' boards ISO 95+ GL	Cover Board: Hot Asphalt Insulation: Hot Asphalt	Cap Ply: SBS FR Cap SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Base Sheet: MB Base, SBS Base SBS Poly Base SBS Premium Base SBS Smooth	<u>Cap Ply:</u> Hot Asphalt <u>Base Ply:</u> Hot Asphalt	295863- 295809-0

### SBS – 2 Ply – Hot Asphalt – Cover Board/Insulation Attached – Concrete Deck

Uplift	Deck Type	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
105 IF: NC EF: A Slope:	Structural Concrete: 2,500 psi min. 2" thick min.	Vapor Barrier – (Optional): V-Force (SA) direct to deck, primer or BaseGard SA, Primer, '¼" DensDeck	Cover Board: 1/4" min., 4' x 8' boards DensDeck Prime  Insulation: 2"-12", min. 4' x 8' boards ISO 95+ GL/RESISTA	Cover Board: 18 HD fasteners per board  Insulation: Common Fastened	Cap Ply: SBS FR Cap SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Base Sheet: MB Base, SBS Base SBS Premium Base	Cap Ply: Hot Asphalt <u>Base Ply:</u> Hot Asphalt	395178- 394203-0
135 IF: NC EF: A Slope:	Structural <u>Concrete:</u> 2,500 psi min. 2" thick min.	Vapor Barrier – (Optional): 4 or 6-mil. poly or V-Force (SA) direct to deck, primer or BaseGard SA, Primer, 1/4" DensDeck	Cover Board: 1/2" min., 4' x 8' boards DensDeck Prime  Insulation: 2"-12", min. 4' x 8' boards ISO 95+ GL/RESISTA	Cover Board: 18 HD fasteners per board  Insulation: Common Fastened	Cap Ply: SBS FR Cap SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Base Sheet: MB Base, SBS Base SBS Poly Base SBS Premium Base	<u>Cap Ply:</u> Hot Asphalt <u>Base Ply:</u> Hot Asphalt	395181- 394203-0
150 IF: NC EF: A Slope: ½"	Structural <u>Concrete:</u> 2,500 psi min. 2" thick min.	Vapor Barrier (Optional): 4 or 6-mil. poly or V-Force (SA) direct to deck, primer or BaseGard SA, Primer, 1/4" DensDeck	Cover Board: 1/4" min., 4' x 8' boards DensDeck Prime  Insulation: 2"-12", min. 4' x 8' boards ISO 95+ GL/RESISTA	Cover Board: 20 HD fasteners per board Insulation: Common Fastened	Cap Ply: SBS FR Cap SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Base Sheet: MB Base, SBS Base SBS Premium Base	<u>Cap Ply:</u> Hot Asphalt <u>Base Ply:</u> Hot Asphalt	395184- 394203-0



# SBS – 2 Ply – Hot Asphalt – Cover Board/Insulation Attached – Concrete Deck

Uplift	Deck Type	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
180 IF: NC EF: A Slope:	Structural <u>Concrete:</u> 2,500 psi min. 2" thick min.	Vapor Barrier ( <u>Optional):</u> V-Force (SA) direct to deck, primer	Cover Board: 1/2" min., 4' x 8' boards Securock  Insulation: 1.5"-12", min. 4' x 8' boards ISO 95+ GL/RESISTA	Cover Board: 22 Concrete Drive or HD fasteners per board  Insulation: Common Fastened	Cap Ply: SBS FR Cap SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Base Sheet: MB Base, SBS Base SBS Poly Base SBS Premium Base SBS Premium Poly Base SBS Smooth	<u>Cap Ply:</u> Hot Asphalt <u>Base Ply:</u> Hot Asphalt	390818- 389938-0
315 IF: NC EF: A Slope:	Structural <u>Concrete:</u> 2,500 psi min. 2" thick min.	Vapor Barrier (Optional): 4 or 6-mil. poly or V-Force (SA) direct to deck, primer or BaseGard SA, Primer, 1/4" DensDeck	Cover Board: 1/2" min., 4' x 8' boards DensDeck Prime  Insulation: 2.2"-12", min. 4' x 8' boards ISO 95+ GL/RESISTA	Cover Board: 32 HD fasteners per board  Insulation: Common Fastened	Cap Ply: SBS FR Cap SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Base Sheet: MB Base, SBS Base SBS Poly Base SBS Premium Base	<u>Cap Ply:</u> Hot Asphalt <u>Base Ply:</u> Hot Asphalt	395190- 394203-0

# SBS/Ply - 3 Ply - Hot Asphalt - Cover Board/Insulation - Concrete Deck

Uplift	Deck Type	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
90 IF: NC EF: A <u>Slope:</u> 1"	Structural Concrete: 2,500 psi min. 2" thick min.	Vapor Barrier ( <u>Optional):</u> V-Force (SA) direct to deck, primer or SBS Torch	Cover Board: 1/4", 4' x 4' boards DensDeck DensDeck Prime Securock  Insulation: 2"-4", 4' x 8' boards ISO 95+ GL	Cover Board: Hot Asphalt Insulation: 8 HD Fasteners per board	Cap Ply: SBS FR Cap SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Ply Sheet: Type IV, Type VI Base Sheet: SBS Base SBS Premium Base Optional: Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat	Cap Ply: Hot Asphalt Ply: Hot Asphalt Base Ply: Hot Asphalt	62060- 48622-0



## SBS/Ply - 3 Ply - Hot Asphalt - Cover Board/Insulation - Concrete Deck

Uplift	Deck Type	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
90 IF: NC EF: A <u>Slope:</u> 1"	Structural Concrete:  2,500 psi min. 2" thick min.  Primer (Optional): Asphaltic	None	Cover Board: 1/2" min., 4' x 4' boards Structodek HD  Insulation: 1.5"-36", 4' x 4' boards ISO 95+ GL	Cover Board: Hot Asphalt Insulation: Hot Asphalt	Cap Ply: SBS FR Cap SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Ply Sheet: MB Base Type IV, Type VI Base Sheet: MB Base Type IV, Type VI	Cap Ply: Hot Asphalt Ply: Hot Asphalt Base Ply: Hot Asphalt	384524- 384483-0
240 IF: NC EF: A Slope: 1.5"	Structural Concrete: 2,500 psi min. 2" thick min.	None	Cover Board:  1/4" min., 4' x 4' boards Structodek HD  Insulation: 2"-36", 4' x 4' boards ISO 95+ GL	Cover Board: ISO Fix II ISO Spray R ISSO Twin Pack Hot Asphalt  Insulation: ISO Fix II ISO Spray R ISSO Twin Pack Hot Asphalt	Cap Ply: SBS Smooth Ply Sheet: Type IV, Type VI SBS Base SBS Smooth Base Sheet: MB Base SBS Base SBS Premium Base	Cap Ply: Hot Asphalt Ply: Hot Asphalt Base Ply: Hot Asphalt	191649- 48583-0
525 IF: NC EF: A <u>Slope:</u> 1"	Structural Concrete:  2,500 psi min. 2" thick min.  Primer (Optional): Asphaltic	None	Cover Board: 1/4" min., 4' x 4' boards DensDeck Prime Structodek HD  Insulation: 1.5"-36", 4' x 4' boards ISO 95+ GL	Cover Board: Hot Asphalt Insulation: Hot Asphalt	Cap Ply: SBS FR Cap SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Ply Sheet: Type IV, Type VI SBS Base SBS Smooth Base Sheet: MB Base, SBS Base SBS Poly Base SBS Premium Base SBS Premium Base	Cap Ply: Hot Asphalt Ply: Hot Asphalt Base Ply: Hot Asphalt	296000- 295831-0

### SBS – 2 Ply – Hot Asphalt – Cover Board/Insulation – LWIC Over Concrete Deck

Uplift/Deck	Cover Board/Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 180  IF: NC EF: A Slope: 1" Hail: SH Structural Concrete: 2,500 psi min. 2" thick min.	Cover Board: 1/4" min., 4' x 4' boards DensDeck DensDeck Prime Securock Insulation: 1.5"-12", 4' x 4' boards ISO 95+ GL Lightweight Concrete: Range II Elastizell Min. 20" thick	Cover Board: 12" o.c. beads ISO Stick  Insulation: 12" o.c. beads ISO Stick	Coating/Surfacing (Optional): Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat Cap Ply: SBS FR Cap SBS FR Cap UW SBS Glass FR SBS Glass FR UW SBS Premium FR SBS Premium FR SBS Premium FR UW Base Sheet: MB Base, SBS Base SBS Premium Base	Cap Ply: Hot Asphalt Base Ply: Hot Asphalt	181799-48585- 50941



# SBS – 2 Ply – Hot Asphalt – Cover Board/Insulation – LWIC Over Concrete Deck

Uplift/Deck	Cover Board/Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 180  IF: NC EF: A Slope: 1" Hail: SH  Structural Concrete: 2,500 psi min. 2" thick min.	Cover Board:  1/4" min., 4' x 4' boards DensDeck DensDeck Prime Securock Insulation:  1/2"-12", 4' x 4' boards ISO 95+ GL Lightweight Concrete: Range II Elastizell 1"-12" EPS Range II Elastizell	Cover Board: 12" o.c. beads ISO Stick  Insulation: 12" o.c. beads ISO Stick	Coating/Surfacing (Optional): Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat Cap Ply: SBS FR Cap SBS FR Cap UW SBS Glass FR SBS Glass FR SBS Premium FR SBS Premium FR UW Base Sheet: MB Base, SBS Base SBS Premium Base	Cap Ply: Hot Asphalt Base Ply: Hot Asphalt	181799-48585- 50936
PSF: 315  IF: NC EF: A Slope: 1" Hail: SH  Structural Concrete: 2,500 psi min. 2" thick min.	Cover Board: 1/4" min., 4' x 4' boards DensDeck Prime Securock Insulation: 1"-12", 4' x 4' boards ISO 95+ GL Lightweight Concrete: Celcore PVA Curing Compound Celcore MF 1"-12" EPS Celcore MF	<u>Cover Board:</u> 12" o.c. beads ISO Spray R ISO Twin Pack <u>Insulation:</u> ISO Twin Pack	Cap Ply:  SBS FR Cap  SBS FR Cap UW  SBS Glass FR  SBS Glass FR UW  SBS Premium FR  SBS Premium FR  UW  Base Sheet:  MB Base  SBS Base  SBS Premium Base	<u>Cap Ply:</u> Hot Asphalt <u>Base Ply:</u> Hot Asphalt	339987-283575- 339279
PSF: 315  IF: NC EF: A Slope: 1" Hail: SH  Structural Concrete: 2,500 psi min. 2" thick min.	Cover Board:  1/4" min., 4' x 4' boards DensDeck Prime Securock Insulation (Top):  1/2"-4", 4' x 4' boards Tapered ISO 95+ GL Tapered RESISTA Insulation (Bottom): 1"-8", 4' x 4' boards ISO 95+ GL Lightweight Concrete: Celcore PVA Curing Compound Celcore MF 1"-12" EPS Celcore MF	Cover Board: 12" o.c. beads ISO Spray R ISO Twin Pack  Insulation (Top): ISO Twin Pack  Insulation (Bottom): ISO Twin Pack	Cap Ply: SBS FR Cap SBS FR Cap UW SBS Glass FR SBS Glass FR UW SBS Premium FR SBS Premium FR UW  Base Sheet: MB Base SBS Base SBS Poly Base SBS Premium Base	<u>Cap Ply:</u> Hot Asphalt <u>Base Ply:</u> Hot Asphalt	339991-283575- 339279
PSF: 315  IF: NC EF: A Slope: 1" Hail: SH  Structural Concrete: 2,500 psi min. 2" thick min.	Cover Board:  1/4" min., 4' x 4' boards  DensDeck Prime Securock Insulation:  1"-12", 4' x 4' boards  ISO 95+ GL/RESISTA Lightweight Concrete: Celcore PVA Curing Compound Celcore MF 1"-12" EPS Celcore MF	Cover Board: 12" o.c. beads ISO Stick Insulation: ISO Stick	Cap Ply: SBS FR Cap SBS FR Cap UW SBS Glass FR SBS Glass FR UW SBS Premium FR SBS Premium FR UW  Base Sheet: MB Base SBS Base SBS Poly Base SBS Premium Base	<u>Cap Ply:</u> Hot Asphalt <u>Base Ply:</u> Hot Asphalt	340054-283575- 339279



## SBS - 2 Ply - Nailed Base Sheet - LWIC - Steel Deck

Uplift	Deck Type	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
90 IF: 1 EF: A <u>Slope:</u> 1"	Steel (WR): 22 ga 72" span	None	Coating/Surfacing: Celcore PVA Curing Compound  Lightweight Insulating Concrete: Celcore Cellular Concrete (min. 200 psi)  EPS, 1"-12"  Celcore Cellular Concrete: (min. 200 psi)	Base Sheet: Channel Venting MB Base SBS Base SBS Poly Base SBS Premium Base SBS Smooth  Fasteners: LWC Base Ply Fasteners	Cap Ply: SBS FR Cap SBS FR Cap UltraWhite SBS Premium FR SBS Premium FR UltraWhite Base Sheet: MB Base Type IV, Type VI SBS Poly Base SBS Premium Base SBS Premium Base SBS Smooth Optional: Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat	<u>Cap Ply:</u> Hot Asphalt <u>Base Ply:</u> Hot Asphalt	62240- 49032- 50912
90 IF: 1 EF: A <u>Slope:</u> 1"	Steel (WR): 22 ga 72" span	None	Coating/Surfacing: Celcore PVA Curing Compound  Lightweight Insulating Concrete: Celcore Cellular Concrete (min. 340 psi)  EPS, 1"-12"  Celcore Cellular Concrete: (min. 340 psi)	Base Sheet: Channel Venting MB Base SBS Base SBS Poly Torch Base SBS Poly Base SBS Premium Base SBS Smooth SBS Torch Base  Fasteners: Two Piece Impact Nails	Cap Ply: SBS FR Cap SBS FR Cap UltraWhite SBS Glass FR SBS Glass FR UltraWhite SBS Premium FR SBS Premium FR UltraWhite Base Sheet: MB Base SBS Base SBS Poly Base SBS Premium Base SBS Smooth Optional: Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat	Cap Ply: Hot Asphalt <u>Base Ply:</u> LiquiGard Membrane Adhesive	338359- 338337- 326460

## SBS - 2 Ply - Nailed Base Sheet - LWIC - Form Deck

Uplift/Deck	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 90  IF: 1 EF: A Slope: 1" Hail: SH  Form Deck Span: max 72"	Lightweight Insulating Concrete: Mearlcrete  EPS (optional), 1"- 12"  Mearlcrete	Base Sheet: Channel Venting MB Base SBS Base SBS Poly Base SBS Premium Base SBS Smooth  Fasteners: Two Piece Impact nail Seam: 35.4" o.c. at 7" o.c. Filed: 2 rows, staggered at 11.75" o.c.	Coating/Surfacing (Optional): Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat Cap Ply: SBS FR Cap SBS FR Cap UW SBS Glass FR SBS Glass FR UW SBS Premium FR SBS Premium FR SBS Premium FR UW Base Sheet: SBS Base SBS Poly Base SBS Premium Base SBS SMOoth	Cap Ply: MB Cold Base Ply: MB Cold	325469- 295652- 325250



# $\ensuremath{\mathsf{SBS}} - 2\ \ensuremath{\mathsf{Ply}} - \ensuremath{\mathsf{Nailed}}\ \ensuremath{\mathsf{Base}}\ \ensuremath{\mathsf{Sheet}} - \ensuremath{\mathsf{LWIC}} - \ensuremath{\mathsf{Form}}\ \ensuremath{\mathsf{Deck}}$

Uplift/Deck	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 90  IF: 1 EF: A Slope: 1" Hail: SH  Form Deck  Span: max 72"	Coating/Surfacing: Celcore PVA Curing Compound Lightweight Insulating Concrete: Celcore MF Cellular Concrete (min. 350 psi) EPS, 1"-12" Celcore MF Cellular Concrete (min. 350 psi)	Base Sheet: Channel Venting MB Base SBS Base SBS Poly Base SBS Premium Base SBS Smooth  Fasteners: 1.7" LWC Base Ply Fasteners Seam: 35.4" o.c. at 9" o.c. Filed: 2 rows, staggered at 12" o.c.	Cap Ply:  SBS FR Cap  SBS FR Cap UW  SBS Glass FR  SBS Glass FR UW  SBS Premium FR  SBS Premium FR UW  Base Sheet:  MB Base  SBS Base  SBS Poly Base  SBS Premium Base  SBS Smooth	<u>Cap Ply:</u> Hot Asphalt <u>Base Ply:</u> Hot Asphalt	382860- 382810- 143350
PSF: 90  IF: 1  EF: A  Slope: 1"  Hail: SH  Form Deck  Span:  max 72"	Lightweight Insulating Concrete: Mearlcrete  EPS (optional), 1"-12"  Mearlcrete	Base Sheet: Channel Venting MB Base SBS Base SBS Poly Base SBS Premium Base SBS Smooth  Fasteners: Two Piece Impact nail Seam: 35.4" o.c. at 7" o.c. Filed: 2 rows, staggered at 11.75" o.c.	Coating/Surfacing (Optional): Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat Cap Ply: SBS FR Torch SBS FR Torch UW SBS Glass FR Torch SBS Premium FR Torch SBS Premium FR Torch SBS Glass Torch UW SBS Premium FR Torch SBS Premium FR Torch SBS Premium FR Torch SBS Premium FR Torch SBS SBS Sheet: SBS Glass Torch Base SBS Poly Torch Base SBS Smooth Torch	Cap Ply: Torched Base Ply: Torched	325495- 353927- 325250
PSF: 90  IF: 1  EF: A  Slope: 1"  Hail: SH  Form Deck  Span: max 72"	Coating/Surfacing: Celcore PVA Curing Compound  Lightweight Insulating Concrete: Celcore MF Cellular Concrete (min. 350 psi)  EPS, 1"-12"  Celcore MF Cellular Concrete (min. 350 psi)	Base Sheet: Channel Venting MB Base SBS Base SBS Poly Base SBS Premium Base SBS Smooth  Fasteners: 1.7" LWC Base Ply Fasteners Seam: 35.4" o.c. at 9" o.c. Filed: 2 rows, staggered at 12" o.c.	Coating/Surfacing (Optional): Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat Cap Ply: SBS FR Cap SBS FR Cap UW SBS FR Torch SBS FR Torch SBS Glass FR SBS Glass FR SBS Glass FR Torch SBS Premium FR SBS Premium FR SBS Premium FR Torch SBS Premium FR Torch SBS Premium FR Torch	Cap Ply: Torched Base Ply: Torched	382815- 382813- 143350
PSF: 120  IF: 1  EF: A  Slope: 1"  Hail: SH  Form Deck  Span: max 72"	Coating/Surfacing: Celcore PVA Curing Compound Lightweight Insulating Concrete: Celcore Cellular Concrete (min. 200 psi) EPS, 1"-12" Celcore MF Cellular Concrete (min. 200 psi)	Base Sheet: Channel Venting MB Base SBS Base SBS Poly Base SBS Premium Base SBS Smooth  Fasteners: 1.7" LWC Base Ply Fasteners Seam: 35.4" o.c. at 9" o.c. Filed: 2 rows, staggered at 12" o.c.	Coating/Surfacing (Optional): Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat Cap Ply: SBS FR Torch SBS FR Torch UW SBS Glass FR Torch UW SBS Premium FR Torch SBS Premium FR Torch SBS Premium FR Torch UW Base Sheet: SBS Glass Torch Base SBS Poly Torch Base	<u>Cap Ply:</u> Torched <u>Base Ply:</u> Torched	291591- 200377- 50912



# $SBS-2\ Ply-Nailed\ Base\ Sheet-LWIC-Form\ Deck$

Uplift/Deck	plift/Deck   Cover Board/ Cover Board/ Insulation Attachmen		Membrane Options	Membrane Attachment	RoofNav Number
	Coating/Surfacing:	Base Sheet:	Coating/Surfacing:		
PSF: 120	Celcore PVA Curing	Channel Venting	Hot Asphalt/Gravel		
PSF. 120	Compound	MB Base	<u>Cap Ply:</u>		
IF: 1	Lightweight	SBS Base	SBS Premium Torch		
EF: A	Insulating Concrete:	SBS Poly Base	SBS Premium Torch UW	Cap Ply:	
Slope: 1.5"	Celcore Cellular	SBS Premium Base	SBS Smooth Torch	Torched	291592-
Hail: SH	Concrete	SBS Smooth	SBS Torch		258373-
	(min. 200 psi)		SBS Torch UW	Base Ply:	50912
Form Deck	` '	<u>Fasteners:</u>	Base Sheet:	Torched	
Cnon:	EPS, 1"-12"	1.7" LWC Base Ply Fasteners	SBS Glass Torch Base		
<u>Span:</u> max 72"	Celcore MF Cellular	Seam: 35.4" o.c. at 9" o.c.	SBS Poly Torch Base		
IIIAX 12	Concrete	Filed: 2 rows, staggered at	SBS Smooth Torch		
	(min. 200 psi)	12" o.c.	SBS Torch Base		

#### SBS - Cap Torched - Base Sheet - Cover Board/Insulation Attached - Steel Deck

Uplift/Deck	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
90 IF: 1 EF: A <u>Slope:</u> 1"	<u>Steel:</u> 22-16 ga 33 ksi 72" span	Insulation: 1½"-12", 4' x 4' boards ISO 95+ GL Pre-Securement	Cap Ply: SBS FR Torch SBS FR Torch UltraWhite SBS Glass FR Torch SBS Glass FR Torch UltraWhite SBS Premium FR Torch SBS Premium FR Torch UltraWhite Base Sheet: Channel Venting Base MB Base SBS Base	Cap: Torched Base Sheet: HD Fasteners Laps: 36.4" Rows, 12" o.c. Field Rows: 2 Rows at 18" o.c. Staggered	47497- 50456-0
135 IF: 1 EF: A <u>Slope:</u> 1"	<u>Steel (WR):</u> 22-18 ga 33 ksi 72" span	Insulation: 1½"-12", 4' x 4' boards ISO 95+ GL Pre-Securement	Cap Ply: SBS FR Torch SBS FR Torch UltraWhite SBS Glass FR Torch SBS Glass FR Torch SBS Premium FR Torch SBS Premium FR Torch SBS Premium FR Torch UltraWhite Base Sheet: SBS Poly Torch Base	Cap: Torched  Base: Torched & HD Fasteners w/ Batten Strip 35.5" Rows, 12" o.c.	59095- 50456-0
165 IF: 1 EF: A <u>Slope:</u> 1"	<u>Steel (WR):</u> 22-18 ga 33 ksi 72" span	Cover Board:  1/2" min., 4'x8' boards DensDeck DensDeck Prime Securock Pre-Securement  Insulation: 11/2"-12", min. 4'x4' boards ISO 95+ GL Common Fastened	Cap Ply: SBS FR Torch SBS FR Torch SBS FR Torch UltraWhite SBS Glass FR Torch SBS Glass FR Torch UltraWhite SBS Premium FR Torch SBS Premium FR Torch UltraWhite Base Sheet: SBS Glass Torch Base SBS Poly Torch Base SBS Smooth Torch Optional: Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat	Cap: Torched  Base: Torched & HD Plus Fasteners w/ Metal Batten Strip 36" Rows, 6" o.c.	329151- 155408-0



#### SBS - Cap Torched - Base Sheet - Cover Board/Insulation Attached - Steel Deck

Uplift/Deck	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
	<u>Steel (WR):</u> 18 ga, 33 ksi 68" span	Cover Board: 1/2" min., 4' x 8' boards	<u>Cap Ply:</u> SBS FR Torch SBS FR Torch UltraWhite	<u>Сар:</u>	
315	20 ga, 33 ksi 58" span	DensDeck DensDeck Prime Securock Pre-Securement    Insulation:   1½"-12", min. 4' x 4' boards   ISO 95+ GL	SBS Glass FR Torch SBS Glass FR Torch UltraWhite SBS Premium FR Torch SBS Premium FR Torch UltraWhite Base Sheet: SBS Glass Torch Base SBS Poly Torch Base SBS Smooth Torch	Torched	155415- 155408-0
IF: 1 EF: A	22 ga, 33 ksi 52" span			Base: Torched & HD Plus Fasteners w/ Metal Batten 36" Rows, 6" o.c.	
Slope: 1"	22-18 ga, 80 ksi 72" span				
	22 ga, 80 ksi 71" span	Common Fastened	<u>Optional:</u> Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat		

#### SBS - Cap Torched - Base Attached - Cover Board/Insulation Attached - Concrete Deck

Uplift	Deck Type	Cover Board/ Insulation	Membrane Options	Membrane Attachment	RoofNav Number
90 IF: NC EF: A <u>Slope:</u> 1"	Structural <u>Concrete:</u> 2,500 psi min. 2" thick min.	Insulation: 1½"-12", min. 4' x 4' boards ISO 95+ GL  Vapor Retarder (Optional): V-Force	Cap Ply: SBS FR Torch SBS FR Torch UltraWhite SBS Glass FR Torch SBS Glass FR Torch UltraWhite SBS Premium FR Torch SBS Premium FR Torch UltraWhite Base Sheet: SBS Glass Torch Base SBS Poly Torch Base SBS Smooth Torch	Cap: Torched Base: Torched & HD Plus Fasteners w/ Metal Batten Strip Lap: 36.4" Rows, 12" o.c. Field: 2 Rows, 18" o.c. Staggered Channel Venting Base MB Base, SBS Base	278401-50456-0

#### SBS - Cap and Base Torched - Cover Board/Insulation - Steel Deck

Uplift	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 90 22-18 ga 33 ksi 72" span  IF: 1 EF: A Slope: 1"	None	Cover Board: 1/2" min., 4' x 8' boards DensDeck Insulation: 11/2"-12", 4' x 4' min.	Cover Board: 8 HD Fasteners per board  Insulation: Common Fastened	Cap: SBS FR Torch SBS FR Torch UW SBS Glass FR Torch SBS Glass FR Torch UW SBS Premium FR Torch SBS Premium FR Torch UW SBS Premium FR UW SBS Premium FR UW SBS Premium FR UW Base: SBS Glass Torch Base SBS Poly Torch Base	<u>Cap:</u> Torched <u>Base:</u> Torched	388275- 200377-0
PSF: 90  22-16 ga 33 ksi 72" span  IF: 1 EF: A Slope: ½" Hail: SH	Thermal (Optional): 1/4" min., 4'x8' boards DensDeck DensDeck Prime Securock	Cover Board: 1/2" min., 4' x 4' boards DensDeck Prime Securock Insulation (Top): 1/2"-9.8", 4' x 4' min. Insulation (Bottom): 2.2"-4", 4'x4' min. Max Insulation 12"	Cover Board: 12" o.c. beads ISO Spray R ISO Twin Pack Insulation (Top): 12" o.c. beads ISO Twin Pack Insulation (Bottom): 8 HD Fasteners per board	Cap: SBS Premium Torch SBS Premium Torch UW SBS Smooth Torch SBS Torch SBS Torch SBS Torch UW Base: SBS Glass Torch Base SBS Torch Base	<u>Cap:</u> Torched <u>Base:</u> Torched	385473- 155397-0



# SBS – Cap and Base Torched – Cover Board/Insulation – Steel Deck

Uplift	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 90  22-16 ga 33 ksi 72" span  IF: 1 EF: A Slope: 1" Hail: SH	Thermal (Optional): '/4" min., 4' x 8' boards DensDeck DensDeck Prime Securock	Cover Board: '½" min., 4' x 4' boards DensDeck Prime Securock  Insulation: 2.2"-2", 4' x 8' ISO 95+ GL/ RESISTA	Cover Board: 12" o.c. beads ISO Spray R ISO Twin Pack  Insulation (Bottom): 8 HD Fasteners per board	Coating/Surfacing (Optional): Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat Cap: SBS FR Torch SBS FR Torch UW SBS Glass FR Torch SBS Glass FR Torch UW SBS Premium FR Torch SBS Premium FR Torch SBS Premium FR Torch UW Base: SBS Glass Torch Base SBS Torch Base	<u>Cap:</u> Torched <u>Base:</u> Torched	385484- 155400-0

# SBS - Cap and Base Torched - Cover Board/Insulation Attached - Concrete Deck

Uplift/Deck	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 90 Structural Concrete: 2,500 psi min. 2" thick min.  IF: NC EF: A Slope: ½"	Vapor Retarder <u>(Optional):</u> V-Force (SA) Primer	Cover Board:  1/4" min., 4' x 8' boards DensDeck Securock  Insulation: 11/2"-12", min. 4' x 4' boards ISO 95+ GL	Cover Board: 16 HD Fasteners/Plates Insulation: Common Fastened	Cap: SBS FR Cap SBS FR Cap UW SBS FR Torch SBS FR Torch UW SBS Glass FR SBS Glass FR Torch SBS Glass FR Torch SBS Premium FR SBS Premium FR Torch SBS Premium FR Torch SBS Premium FR Torch UW SBS Premium FR UW Base: SBS Glass Torch Base SBS Poly Torch Base SBS Premium Poly Base SBS Smooth	<u>Cap:</u> Torched <u>Base:</u> Torched	390815- 389953-0
PSF: 105 Structural Concrete: 2,500 psi min. 2" thick min.  IF: NC EF: A Slope: ½"	Vapor Retarder (Optional): 4-6 mil. Poly V-Force (SA) Primer BaseGard SA Primer DensDeck	Cover Board: 1/4" min., 4' x 8' boards DensDeck Prime  Insulation: 2"-12", min. 4' x 4' boards ISO 95+ GL/RESISTA	Cover Board: 18 HD Fasteners/Plates Insulation: Common Fastened	Cap:  SBS FR Cap  SBS FR Cap UW  SBS FR Torch  SBS FR Torch UW  SBS Glass FR  SBS Glass FR Torch  SBS Premium FR  SBS Premium FR Torch  SBS Premium FR Torch UW  SBS Premium FR Torch  SBS Premium FR Torch UW  SBS Premium FR Torch UW  SBS Premium FR UW  Base:  SBS Glass Torch Base  SBS Poly Torch Base  SBS Premium Poly Base	<u>Cap:</u> Torched <u>Base:</u> Torched	395159- 394200-0



# SBS - Cap and Base Torched - Cover Board/Insulation Attached - Concrete Deck

Uplift/Deck	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 135 Structural Concrete: 2,500 psi min. 2" thick min. IF: NC EF: A Slope: ½"	Vapor Retarder (Optional): 4-6 mil. Poly V-Force (SA) Primer BaseGard SA Primer DensDeck	Cover Board: 1/2" min., 4' x 8' boards DensDeck Prime  Insulation: 2"-12", min. 4' x 4' boards ISO 95+ GL/ RESISTA	Cover Board: 18 HD Fasteners/Plates Insulation: Common Fastened	Cap: SBS FR Cap SBS FR Cap UW SBS FR Torch SBS FR Torch UW SBS Glass FR SBS Glass FR Torch SBS Glass FR Torch SBS Premium FR SBS Premium FR Torch SBS Premium FR Torch UW	<u>Cap:</u> Torched <u>Base:</u> Torched	395162- 394199-0
PSF: 195 Structural Concrete:  2,500 psi min. 2" thick min.  IF: NC EF: A Slope: ½"	Vapor Retarder (Optional): 4-6 mil. Poly V-Force (SA) Primer  BaseGard SA Primer DensDeck	Cover Board: 1/2" min., 4' x 8' boards DensDeck Prime  Insulation: 2"-12", min. 4' x 4' boards ISO 95+ GL/ RESISTA	Cover Board: 24 HD Fasteners/Plates  Insulation: Common Fastened	Cap:  SBS FR Cap  SBS FR Cap UW  SBS FR Torch  SBS FR Torch UW  SBS Glass FR  SBS Glass FR Torch  SBS Glass FR Torch  SBS Premium FR  SBS Premium FR Torch  SBS Premium FR Torch UW  SBS Premium FR TORCH  SBS POSS FORCH BASE  SBS Glass TORCH BASE	<u>Cap:</u> Torched <u>Base:</u> Torched	395164- 394199-0
PSF: 195 Structural Concrete: 2,500 psi min. 2" thick min. IF: NC EF: A Slope: ½"	Vapor Retarder (Optional): 4-6 mil. Poly V-Force (SA) Primer BaseGard SA Primer DensDeck	Cover Board: 1/2" min., 4' x 8' boards DensDeck Prime  Insulation: 2"-12", min. 4' x 4' boards ISO 95+ GL/ RESISTA	Cover Board: 32 HD Fasteners/Plates Insulation: Common Fastened	Cap: SBS FR Cap SBS FR Cap UW SBS FR Torch SBS FR Torch UW SBS Glass FR SBS Glass FR Torch SBS Premium FR SBS Premium FR SBS Premium FR Torch UW SBS Premium FR UW SBS Premium FR UW Base: SBS Glass Torch Base SBS Poly Torch Base	<u>Cap:</u> Torched <u>Base:</u> Torched	395165- 394199-0



#### SBS - Cap and Base Torched - Cover Board/Insulation Adhered - Concrete Deck

Uplift	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 255 Structural Concrete: 2,500 psi min. 2" thick min.  IF: NC EF: A Slope: 1"	Vapor Retarder: SBS Glass Torch Base SBS Poly Torch Base SBS Smooth  Attachment: Torched  Primer (Permeable)	Cover Board:  1/4" min., 4' x 4' boards DensDeck DensDeck Prime Securock  Insulation:  11/2"-12", 4' x 4' boards ISO 95+ GL/ RESISTA	Cover Board: 12" o.c. beads ISO Spray R ISO Twin Pack  Insulation: 12" o.c. beads ISO Spray R ISO Twin Pack	Coating/Surfacing (Optional): Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat Cap: SBS FR Torch SBS FR Torch UW SBS Glass FR Torch SBS Glass FR Torch UW SBS Premium FR Torch SBS Premium FR Torch SBS Promium FR Torch SBS Promium FR Torch UW Base: SBS Glass Torch Base SBS Poly Torch Base SBS Torch Base	<u>Cap:</u> Torched <u>Base:</u> Torched	231096- 200377-0

#### SBS -Torched - BaseGard SA- Cover Board/Insulation Attached - Concrete Deck

Uplift	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 90 Structural Concrete: 2,500 psi min. 2" thick min. IF: NC EF: A Slope: 1" Hail: SH	Vapor Retarder: V-Force Primer SBS Torch Torched	<u>Insulation:</u> 1½"-12", min. 4' x 4' boards ISO 95+ GL/ RESISTA	<u>Insulation:</u> 8 HD or Concrete Drive Fasteners per board	Coating/Surfacing (Optional): Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat Cap: SBS FR Torch SBS FR Torch UW SBS Glass FR Torch SBS Glass FR Torch UW SBS Premium FR Torch	<u>Cap:</u> Torched <u>Base:</u> Self Adhered	315272- 315082-0
PSF: 90 Structural Concrete: 2,500 psi min. 2" thick min.  IF: NC EF: A Slope: 1" Hail: SH	Vapor Retarder: V-Force Primer SBS Torch Torched	Insulation: 1½"-12", min. 4' x 4' boards ISO 95+ GL/ RESISTA	<u>Insulation:</u> 12 HD or Concrete Drive Fasteners per board	Coating/Surfacing (Optional): Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat Cap: SBS FR Torch SBS FR Torch UW SBS Glass FR Torch SBS Glass FR Torch UW SBS Premium FR Torch SBS Premium FR Torch SBS Premium FR Torch SBS Premium FR Torch UW Base: BaseGard SA	<u>Cap:</u> Torched <u>Base:</u> Self Adhered	315247- 315082-0
PSF: 90 Structural Concrete: 2,500 psi min. 2" thick min.  IF: NC EF: A Slope: 1" Hail: SH	None	Cover Board: 1/4" min., 4' x 4' boards DensDeck Prime Securock  Insulation: 11/2"-12", min. 4' x 4' boards ISO 95+ GL/ RESISTA	<u>Cover Board:</u> 16 HD or Concrete Drive Fasteners per board <u>Insulation:</u> Common Fastened	Coating/Surfacing (Optional): Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat Cap: SBS FR Torch SBS FR Torch UW SBS Glass FR Torch SBS Glass FR Torch SBS Premium FR Torch SBS Premium FR Torch SBS Premium FR Torch UW Base: BaseGard SA	<u>Cap:</u> Torched <u>Base:</u> Self Adhered	315223- 315082-0



#### SBS -Torched - BaseGard SA- Cover Board/Insulation Attached - Concrete Deck

Uplift	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 135 Structural Concrete: 2,500 psi min. 2" thick min.  IF: NC EF: A Slope: ½" Hail: SH	<u>Vapor Retarder:</u> V-Force Primer	Cover Board: ½" min., 4' x 4' boards DensDeck Prime Securock  Insulation: 2"-12", min. 4' x 4' boards ISO 95+ GL/ RESISTA	Cover Board: 4" o.c. beads ISO Fix II ISO Spray R ISO Twin Pack ISO Stick Insulation: 32 HD or Concrete Drive Fasteners per board	Cap: SBS FR Cap SBS FR Cap UW SBS FR Torch SBS FR Torch UW SBS Glass FR SBS Glass FR Torch SBS FR Torch UW SBS Premium FR SBS Premium FR Torch SBS Premium FR Torch SBS Premium FR Torch UW SBS Premium FR Torch UW SBS Premium FR Torch UW SBS Premium FR UW Ply: SBS Glass Torch Base SBS Poly Torch Base Base: BaseGard SA	<u>Cap:</u> Torched <u>Ply:</u> Torched <u>Base:</u> Self-Adhered	390694- 389950-0
PSF: 165 Structural Concrete: 2,500 psi min. 2" thick min.  IF: NC EF: A Slope: 1" Hail: SH	None	Cover Board: ½" min., 4' x 4' boards DensDeck Prime Securock  Insulation: 1½"-36", min. 4' x 4' boards ISO 95+ GL/ RESISTA	Cover Board: 4" o.c. beads ISO Spray R ISO Twin Pack  Insulation: 4" o.c. beads ISO Twin Pack	Coating/Surfacing (Optional): Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat <u>Cap:</u> SBS FR Torch  SBS FR Torch UW  SBS Glass FR Torch  SBS Glass FR Torch UW  SBS Premium FR Torch  SBS Premium FR Torch  SBS Premium FR Torch UW  Base:  BaseGard SA	<u>Cap:</u> Torched <u>Base:</u> Self-Adhered	315808- 315082-0
PSF: 165 Structural Concrete: 2,500 psi min. 2" thick min.  IF: NC EF: A Slope: 1" Hail: SH	None	Cover Board:  1/2" min., 4' x 4' boards DensDeck Prime Securock  Insulation:  1/2"-36", min. 4' x 4' boards ISO 95+ GL/ RESISTA	Cover Board: 4" o.c. beads ISO Spray R ISO Twin Pack  Insulation: 4" o.c. beads ISO Twin Pack	Coating/Surfacing (Optional): Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat  Cap: SBS FR Torch SBS FR Torch UW SBS Glass FR Torch SBS Glass FR Torch UW SBS Premium FR Torch SBS Premium FR Torch SBS Premium FR Torch UW Base: BaseGard SA	<u>Cap:</u> Torched <u>Base:</u> Self-Adhered	315808- 315082-0
PSF: 180 Structural Concrete: 2,500 psi min. 2" thick min.  IF: NC EF: A Slope: 1" Hail: SH	None	Insulation: 1½"-36", min. 4' x 4' boards ISO 95+ GL/ RESISTA	Insulation: 4" o.c. beads ISO Fix II  Concrete Primer, Asphaltic, Permeable	Coating/Surfacing (Optional): Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat Cap: SBS FR Torch SBS FR Torch UW SBS Glass FR Torch SBS Glass FR Torch UW SBS Premium FR Torch SBS Premium FR Torch SBS Premium FR Torch SBS Premium FR Torch UW Base: BaseGard SA	<u>Cap:</u> Torched <u>Base:</u> Self-Adhered	315771- 315082-0



## SBS -Torched - BaseGard SA- Cover Board/Insulation Attached - Concrete Deck

Uplift	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 225 Structural Concrete: 2,500 psi min. 2" thick min.  IF: NC EF: A Slope: 1" Hail: SH	None	Insulation: 1/2"-4", 4' x 4' boards Tapered ISO 95+ GL/ RESISTA Insulation: 1/2"-36", min. 4' x 4' boards ISO 95+ GL/ RESISTA	Insulation: 8" o.c. beads ISO Fix II Concrete Primer, Asphaltic, Permeable	Coating/Surfacing (Optional): Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat  Cap: SBS FR Torch SBS FR Torch UW SBS Glass FR Torch SBS Glass FR Torch UW SBS Premium FR Torch SBS Premium FR Torch SBS Premium FR Torch UW SBS Premium FR Torch UW	<u>Cap:</u> Torched <u>Base:</u> Self-Adhered	315786- 315082-0
PSF: 270 Structural Concrete: 2,500 psi min. 2" thick min.  IF: NC EF: C Slope: 5" Hail: SH	None	None	None	Cap: SBS Premium Torch SBS Premium Torch UW SBS Smooth Torch SBS Torch SBS Torch UW  Base: BaseGard SA  Concrete Primer, Asphaltic, Permeable	<u>Cap:</u> Torched <u>Base:</u> Self-Adhered	315156- 315072-0
PSF: 420 Structural Concrete:  2,500 psi min. 2" thick min.  IF: NC EF: A Slope: 1" Hail: SH	None	Insulation: 1½"-36", min. 4' x 4' boards ISO 95+ GL	Insulation: 8" o.c. beads ISO Fix II Concrete Primer, Asphaltic, Permeable	Cap: SBS FR Torch SBS FR Torch UW SBS Glass FR Torch SBS Glass FR Torch UW SBS Premium FR Torch SBS Premium FR Torch SBS Premid FR Torch UW Base: BaseGard SA	<u>Cap:</u> Torched <u>Base:</u> Self-Adhered	315778- 315082-0
PSF: 435 Structural Concrete: 2,500 psi min. 2" thick min.  IF: NC EF: A Slope: 1" Hail: SH	None	Cover Board: 1/2", 4' x 4' boards ISOGARD HD  1"-2.5", 4' x 4' boards ISOGARD HD Composite  Insulation: 11/2"-36", min. 4' x 4' boards ISO 95+ GL/ RESISTA	Insulation: 12" o.c. beads ISO Stick Twin Jet	Coating/Surfacing (Optional): Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat  Cap: SBS FR Torch SBS FR Torch UW SBS Glass FR Torch SBS Glass FR Torch UW SBS Premium FR Torch SBS Premium FR Torch SBS Premium FR Torch	<u>Cap:</u> Torched <u>Base:</u> Self-Adhered	315909- 315082-0



#### SBS -Torched - BaseGard SA- Cover Board/Insulation Attached - Concrete Deck

Uplift	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 435 Structural Concrete: 2,500 psi min. 2" thick min.  IF: NC EF: A Slope: 1" Hail: SH	None	Cover Board: ½", 4' x 4' boards ISOGARD HD  1"-2.5", 4' x 4' boards ISOGARD HD Composite  Insulation: 1½"-36", min. 4' x 4' boards ISO 95+ GL	Cover Board: 12" o.c. beads ISO Spray R ISO Twin Pack  Insulation: 12" o.c. beads ISO Twin Pack	Coating/Surfacing (Optional): Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat  Cap: SBS FR Torch SBS FR Torch UW SBS Glass FR Torch SBS Glass FR Torch SBS Premium FR Torch SBS Premium FR Torch SBS Premium FR Torch	<u>Cap:</u> Torched <u>Base:</u> Self-Adhered	315894- 315082-0

#### SBS -Torched - BaseGard SA- Cover Board/Insulation Attached - Steel Deck

		Court Ort	Over Board/Institution / (tradition Otee) Book			Des Oles
Uplift	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 90  IF: 1 EF: a Slope: 1" Hail: SH  Steel: 22-16 ga 72" span 33 ksi	Vapor Barrier (Optional):  4-6 mil poly or V-Force (SA) ¼" min. DensDeck  SA Primer may be required.	Insulation: 1½"-12", min. 4' x 4' boards ISO 95+ GL/ RESISTA	<u>Insulation:</u> 8 HD Fasteners per board	Coating/Surfacing (Optional): Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat Cap: SBS FR Torch SBS FR Torch UW SBS Glass FR Torch SBS Glass FR Torch UW SBS Premium FR Torch SBS Premium FR Torch SBS Premium FR Torch SBS Premium FR Torch UW Base: BaseGard SA	<u>Cap:</u> Torched <u>Base:</u> Self-Adhered	315241- 315082-0
PSF: 90  IF: 1 EF: A Slope: 1" Hail: SH  Steel: 22-16 ga 72" span 33 ksi	Vapor Barrier (Optional):  4-6 mil poly or V-Force (SA) ¼" min. DensDeck  SA Primer may be required.	Cover Board: ½", 4' x 8' boards ISOGARD HD  Insulation: 1½"-12", min. 4' x 8' boards ISO 95+ GL/ RESISTA	Cover Board: 12 HD Fasteners per board  Insulation: Common Fastened	Coating/Surfacing (Optional): Acrylic Base Coat for Asphalt Or AcryliTop PC-100 Coat Cap: SBS FR Torch SBS FR Torch UW SBS Glass FR Torch SBS Glass FR Torch UW SBS Premium FR Torch	<u>Cap:</u> Torched <u>Base:</u> Self-Adhered	315871- 315082-0
PSF: 90  IF: 1 EF: A Slope: 1" Hail: SH  Steel: 22-16 ga 72" span 33 ksi	Vapor Barrier (Optional):  4-6 mil poly or V-Force (SA) ¼" min. DensDeck SA Primer may be required.	Cover Board: ½", 4' x 8' boards DensDeck Prime Securock  Insulation: 1½"-12", min. 4' x 4' boards ISO 95+ GL/ RESISTA	Cover Board: 24 HD Fasteners per board Insulation: Common Fastened	Coating/Surfacing (Optional): Acrylic Base Coat for Asphalt or AcryliTop PC-100 Coat Cap: SBS FR Torch SBS FR Torch UW SBS Glass FR Torch SBS Glass FR Torch UW SBS Premium FR Torch	<u>Cap:</u> Torched <u>Base:</u> Self-Adhered	315793- 315082-0



#### Built-Up Roof – Hot Asphalt – Cover Board/Insulation – Steel Deck

Uplift	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 90  IF: 1 EF: A Slope: 3" Hail: SH  Steel: 22-16 ga 72" span 33ksi	Vapor Barrier: V-Force Primer: Permeable Thermal Barrier: 4' x 8' boards 1/4" min, DensDeck 1/2" min, Securock	Cover Board: 1/4", 4' x 4' boards DensDeck DensDeck Prime Securock  Insulation: 11/2"-12", 4' x 4' boards ISO 95+ GL	Cover Board: 12" o.c. beads, ISO Stick  Insulation: 12" o.c. beads, ISO Twin Pack ISO Stick	Coating/Surfacing: Hot Asphalt/Gravel Ply: (3) Type IV or VI	<u>Ply:</u> Hot Asphalt	294792- 289016-0
PSF: 90  IF: 1 EF: A Slope: ½" Hail: SH 22-26 ga 72" span 33ksi	Thermal Barrier (Optional): 5/s", 4' x 8' boards DensDeck DensDeck Prime Securock Common Fastened	Cover Board: 1/4", 4' x 4' boards DensDeck DensDeck Prime Securock  Insulation: 2.2"-4", 4' x 4' boards ISO 95+ GL	Cover Board: Hot Asphalt Insulation: 10 HD Fasteners per board	Coating/Surfacing: Acrylic Base Coat for Asphalt AcryliTop PC-100 Coat Aluminum Fibered Roof Coating Fibered Asphalt Emulsion Ply: (4) Type IV or VI	<u>Ply:</u> Hot Asphalt	60855- 48535-0
PSF: 90  IF: 1  EF: A  Slope: ½"  Hail: SH  22-26 ga 72" span 33ksi	Thermal Barrier (Optional): 5/s", 4' x 8' boards DensDeck DensDeck Prime Securock  Common Fastened	Cover Board: 1/4", 4' x 4' boards DensDeck DensDeck Prime Securock  Insulation: 2.2"-4", 4' x 4' boards ISO 95+ GL	Cover Board: Hot Asphalt Insulation: 10 HD Fasteners per board	Coating/Surfacing: Acrylic Base Coat for Asphalt AcryliTop PC-100 Coat Aluminum Fibered Roof Coating Fibered Asphalt Emulsion Ply: (3) Type IV or VI	<u>Ply:</u> Hot Asphalt	60855- 48536-0

#### Built-Up Roof - Hot Asphalt - Cover Board/Insulation - Concrete Deck

Uplift	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 90  IF: NC EF: A Slope: 3" Hail: SH 2,500 psi min. 2" thick min.	Vapor Retarder: V-Force Primer, Permeable  Thermal Barrier: 1/4" min, 4' x 8' boards DensDeck 1/2" min, 4' x 8' boards Securock	Cover Board:  1/4", 4' x 4' boards DensDeck DensDeck Prime Securock  Insulation:  11/2"-12", 4' x 4' boards ISO 95+ GL	Cover Board:  12" o.c. beads  ISO Spray R  ISO Twin Pack  ISO Stick  Insulation:  12" o.c. beads  ISO Spray R  ISO Twin Pack  ISO Twin Pack  ISO Stick  Thermal Barrier:  8 HD or Concrete Drive  Fasteners	Coating/Surfacing: Hot Asphalt/Gravel Ply: (3) Type IV or VI	<u>Ply:</u> Hot Asphalt	294767- 289016-0
PSF: 90  IF: NC EF: A Slope: ½" Hail: SH 2,500 psi min. 2" thick min.	Thermal Barrier (Optional): %" min, 4' x 8' boards DensDeck DensDeck Prime Securock Common Fastened	Cover Board: 1/4" 4' x 4' boards DensDeck DensDeck Prime Securock  Insulation: 2"-4", 4' x 4' boards ISO 95+ GL	Cover Board: Hot Asphalt  Insulation: 8 HD Fasteners per board	Coating/Surfacing: Acrylic Base Coat for Asphalt AcryliTop PC-100 Coat Aluminum Fibered Roof Coating Fibered Asphalt Emulsion Ply: (4) Type IV or VI	<u>Ply:</u> Hot Asphalt	60901- 48535-0



### Built-Up Roof - Hot Asphalt - Cover Board/Insulation - Concrete Deck

Uplift	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 90  IF: NC EF: A Slope: ½" Hail: SH  2,500 psi min. 2" thick min.	None	Cover Board: 1/2", 4' x 4' boards Structodek HD  1/4", 4' x 4' boards DensDeck  Insulation: 11/2"-12", 4' x 4' boards ISO 95+ GL	Cover Board: Hot Asphalt  Insulation: Hot Asphalt  Substrate Primer: Asphaltic, Permeable	Coating/Surfacing: Acrylic Base Coat for Asphalt AcryliTop PC-100 Coat Aluminum Fibered Roof Coating Fibered Asphalt Emulsion Ply: (4) Type IV or VI	<u>Ply:</u> Hot Asphalt	384866- 384844-0
PSF: 90  IF: NC EF: A Slope: 3" Hail: SH  2,500 psi min. 2" thick min.	None	Cover Board: 1/2", 4' x 4' boards Structodek HD  1/4", 4' x 4' boards DensDeck  Insulation: 11/2"-12", 4' x 4' boards ISO 95+ GL	Cover Board: Hot Asphalt  Insulation: Hot Asphalt  Substrate Primer: Asphaltic, Permeable	Coating/Surfacing: Hot Asphalt/Gravel Ply: (3) Type IV or VI	<u>Ply:</u> Hot Asphalt	384868- 341562-0
PSF: 90  IF: NC EF: A Slope: 3" Hail: SH  2,500 psi min. 2" thick min.	None	Cover Board: 1/2", 4' x 4' boards Structodek HD  1/4", 4' x 4' boards DensDeck  Insulation: 2.2"-12", 4' x 4' boards ISO 95+ GL	Cover Board: Hot Asphalt  Insulation: 8 HD or Concrete Drive Fasteners per board	Coating/Surfacing: Hot Asphalt/Gravel <u>Ply:</u> (4) Type IV or VI	<u>Ply:</u> Hot Asphalt	384852- 341561-0
PSF: 90  IF: NC EF: A Slope: ½" Hail: SH  2,500 psi min. 2" thick min.	Thermal Barrier (Optional): %" min, 4' x 8' boards DensDeck DensDeck Prime Securock Common Fastened	Cover Board: 1/4", 4' x 4' boards Structodek HD 1/4", 4' x 4' boards DensDeck Insulation: 11/2"-4", 4' x 4' boards ISO 95+ GL	Cover Board: Hot Asphalt  Insulation: 10 HD or Concrete Drive Fasteners per board	Coating/Surfacing: Acrylic Base Coat for Asphalt AcryliTop PC-100 Coat Aluminum Fibered Roof Coating Fibered Asphalt Emulsion Ply: (4) Type IV or VI	<u>Ply:</u> Hot Asphalt	60898- 48535-0
PSF: 180  IF: NC EF: A Slope: ½" Hail: SH  2,500 psi min. 2" thick min.	None	None	None	Coating/Surfacing: Acrylic Base Coat for Asphalt AcryliTop PC-100 Coat Aluminum Fibered Roof Coating Fibered Asphalt Emulsion Ply: (4) Type IV or VI Primer: Concrete Primer, Asphaltic, Permeable	<u>Ply:</u> Hot Asphalt	60852- 48535-0



### Built-Up Roof - Hot Asphalt - Cover Board/Insulation - Concrete Deck

Uplift	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 180  IF: NC EF: A Slope: ½" Hail: SH  2,500 psi min. 2" thick min.	None	None	None	Coating/Surfacing: Acrylic Base Coat for Asphalt AcryliTop PC-100 Coat Aluminum Fibered Roof Coating Fibered Asphalt Emulsion Ply: (3) Type IV or VI Primer: Concrete Primer, Asphaltic, Permeable	<u>Ply:</u> Hot Asphalt	60852- 48536-0
PSF: 525  IF: NC EF: A Slope: ½" Hail: SH  2,500 psi min. 2" thick min.	None	Cover Board: 1/4", 4' x 4' boards DensDeck Securock  Insulation: 11/2"-12", 4' x 4' boards ISO 95+ GL	<u>Cover Board:</u> Hot Asphalt <u>Insulation:</u> Hot Asphalt	Coating/Surfacing: Acrylic Base Coat for Asphalt AcryliTop PC-100 Coat Aluminum Fibered Roof Coating Fibered Asphalt Emulsion Ply: (3) Type IV or VI	Ply: Hot Asphalt	60881- 48536-0
PSF: 525  IF: NC EF: A Slope: ½" Hail: SH  2,500 psi min. 2" thick min.	None	Cover Board:  1/4", 4' x 4' boards DensDeck Securock  Insulation (Top): 1"-4", 4' x 4' boards Tapered ISO 95+ GL  Insulation (Bottom): 11/2"-4", 4' x 4' boards ISO 95+ GL	Cover Board: Hot Asphalt  Insulation (Top): Hot Asphalt  Insulation (Bottom): Hot Asphalt	Coating/Surfacing: Acrylic Base Coat for Asphalt AcryliTop PC-100 Coat Aluminum Fibered Roof Coating Fibered Asphalt Emulsion Ply: (3) Type IV or VI	<u>Ply:</u> Hot Asphalt	60879- 48536-0
PSF: 525  IF: NC EF: A Slope: ½" Hail: SH  2,500 psi min. 2" thick min.	None	Cover Board: 1/4", 4' x 4' boards DensDeck Securock  Insulation: 11/2"-12", 4' x 4' boards Tapered ISO 95+ GL	<u>Cover Board:</u> Hot Asphalt Insulation: Hot Asphalt	Coating/Surfacing: Acrylic Base Coat for Asphalt AcryliTop PC-100 Coat Aluminum Fibered Roof Coating Fibered Asphalt Emulsion Ply: (3) Type IV or VI	<u>Ply:</u> Hot Asphalt	60881- 48535-0



#### Built-Up Roof - Hot Asphalt - Cover Board/Insulation - LWIC

Uplift	LWC	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 90 IF: 1 EF: A Slope: ½" Hail: SH Form Deck	Coating/Surfacing: Celcore PVA Curing Compound  LWIC: Celcore (min 200 psi) 2" min.  Insulation: 1"-12" EPS  LWIC: Celcore (min 200 psi) 0.125" min.	Cover Board: 4' x 4' boards ½"-1½", Structodek HD ½" min. DensDeck Securock  Insulation: 1½"-4", 4'x4' boards ISO 95+ GL	Cover Board: Full Coverage ISO Spray R  Insulation: Full Coverage ISO Spray R	Coating/Surfacing: Acrylic Base Coat for Asphalt AcryliTop PC-100 Coat Aluminum Fibered Roof Coating Fibered Asphalt Emulsion  Ply: (4) Type IV or VI	<u>Ply:</u> Hot Asphalt	179456- 48535- 51014

#### Built-Up Roof - Hot Asphalt - Base Sheet Attached - No Cover Board/Insulation - LWIC

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Uplift	Deck	LWC	Coating/ Surfacing	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 90  IF: 1  EF: A  Slope: ½"  Hail: SH	Steel (WR): 22 ga Span: max 72" Depth: 1½"	LWIC: Celcore (min 200 psi) 2" min.  Insulation: 1"-12" EPS  Celcore (min 200 psi) 0.125" min.	Celcore PVA Curing Compound	Coating/Surfacing: Acrylic Base Coat for Asphalt AcryliTop PC-100 Coat Aluminum Fibered Roof Coating Fibered Asphalt Emulsion Ply: (4) Type IV or VI Base Sheet: Channel Venting MB Base	Ply: Hot Asphalt Base Sheet: 1.7" LWC Base Ply Fastener Laps: 36.4" rows, 7" o.c. Field: 2 staggered field rows (equally spaced), 7" o.c.	18312- 48535- 50912
PSF: 90 IF: 1 EF: A Slope: ½" Hail: SH	Steel (WR): 22 ga Span: max 72" Depth: 1½"	LWIC: Celcore (min 200 psi) 2" min. Insulation: 1"-12" EPS Celcore (min 200 psi) 0.125" min.	Celcore PVA Curing Compound	Coating/Surfacing: Hot Asphalt/Gravel -and- Acrylic Base Coat for Asphalt AcryliTop PC-100 Coat Aluminum Fibered Roof Coating Fibered Asphalt Emulsion Ply: (4) Type IV or VI  Base Sheet: Channel Venting MB Base	Ply: Hot Asphalt  Base Sheet: 1.7" LWC Base Ply Fastener Laps: 36.4" rows, 7" o.c. Field: 2 staggered field rows (equally spaced), 7" o.c.	62197- 48535- 5091
PSF: 90  IF: 1  EF: A  Slope: 3"  Hail: SH	Steel: Type BV 22 ga Span: 60" Depth: 1½"	LWIC: Mearlcrete Lite-Crete (min 200 psi) 2" min. Insulation: 1"-12" EPS Mearlcrete Lite-Crete (min 200 psi) 0.125" min.	None	Coating/Surfacing: Hot Asphalt/Gravel  Ply: (4) Type IV or VI  Base Sheet: Channel Venting MB Base	Ply: Hot Asphalt  Base Sheet: 1.7" LWC Base Ply Fastener Laps: 35.4" rows, 7" o.c. Field: 2 staggered field rows (equally spaced), 7" o.c.	62219- 62218- 50919



## APP – 2 Ply – Cap/Base Torched – Cover Board/Insulation Attached – Steel Deck

Uplift	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 75  IF: 1 EF: A Slope: 1.5" Hail: SH  Steel: 22-16 ga 72" span 33 ksi	Thermal Barrier (Optional):  1/4" min., 4' x 8' boards DensDeck DensDeck Prime 3/4" min., 4' x 8' boards Securock	Cover Board: 1/2" min., 4' x 4' boards DensDeck Prime Securock  Insulation: 2"-12", 4' x 8' boards ISO 95+ GL/ RESISTA	Cover Board: 12" o.c. beads ISO Spray R ISO Twin Pack  Insulation: 8 HD Fasteners per board	Cap Ply: APP 160 APP 170 APP 180 APP 180 FR APP 180 FR UW APP 180 UW  Base Ply: APP 160 APP 170	<u>Cap:</u> Torched <u>Base:</u> Torched	386053- 263335-0
PSF: 75  IF: 1 EF: A Slope: ½" Hail: SH  Steel 22-16 ga 72" span 33 ksi	Vapor Retarder: V-Force Substrate Primer: V-Force SB Primer, Permeable Thermal Barrier: 1/4" min., 4' x 8' boards DensDeck DensDeck Prime 3/6" min., 4' x 8' boards Securock	Cover Board: 1/2" min., 4' x 4' boards DensDeck Prime Securock  Insulation: 2"-12", 4' x 8' boards ISO 95+ GL/ RESISTA	Cover Board: 12" o.c. beads ISO Spray R ISO Twin Pack  Insulation: 8 HD Fasteners per board	Coating/Surfacing (Optional): Aluminum Fibered Roof Coating Cap Ply: APP 160 APP 180 APP 180 FR APP 180 FR APP 180 FR APP 180 FR UW APP 180 UW APP Premium FR APP Premium FR APP Premium FR UW Base Ply: APP 160 APP 170	<u>Cap:</u> Torched <u>Base:</u> Torched	386044- 323832-0
PSF: 90  IF: 1  EF: A  Slope: ½"  Hail: SH  Steel: 22-16 ga 72" span 33 ksi	Thermal Barrier (Optional): 1/4" min., 4' x 8' boards DensDeck DensDeck Prime 3/6" min., 4' x 8' boards Securock	Cover Board:  1/2" min., 4' x 4' boards  DensDeck Prime Securock Insulation (Top):  1/2"-9.8", 4' x 4' boards ISO 95+ GL/ RESISTA Insulation: 2.2"-4", 4' x 8' boards ISO 95+ GL/ RESISTA	Cover Board: 12" o.c. beads ISO Spray R ISO Twin Pack  Insulation (Top): 12" o.c. beads ISO Twin Pack  Insulation (Bottom): 8 HD Fasteners per board	Coating/Surfacing (Optional): Aluminum Fibered Roof Coating Cap Ply: APP 160 APP 180 APP 180 FR APP 180 FR UW APP 180 UW APP 180 UW APP Premium FR APP Premium FR APP Premium FR UW Base Ply: APP 160 APP 170 APP 80 Glass Base APP Premium Base	<u>Cap:</u> Torched <u>Base:</u> Torched	385473- 323832-0
PSF: 165  IF: 1  EF: A  Slope: 2"  Hail: SH  Steel (WR):  22-18 ga 72" span 33 ksi	Thermal Barrier (Optional): 4 or 6-mil poly or V-Force over 1/4" min., 4' x 8' boards DensDeck	Cover Board:  ½" min., 4'x4' boards DensDeck Prime Securock  Insulation:  1½"-12", 4' x 8' boards ISO 95+ GL	Cover Board: 24 HD Fasteners per board Insulation: Common Fastened	Coating/Surfacing: Hot Asphalt/Gravel Cap Ply: APP 160 APP 170 APP 180 APP 180 FR APP 180 FR APP 180 FR UW APP 180 UW APP Premium FR APP Premium FR APP 180 FR UW Base Ply: APP 160	<u>Cap:</u> Torched <u>Base:</u> Torched	328972- 169856-0



# APP – 2 Ply – Cap/Base Torched – Cover Board/Insulation Attached – Steel Deck

Uplift	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 165 IF: 1 EF: A Slope: 1.5" Hail: SH Steel (WR): 22-18 ga 72" span 33 ksi	Thermal Barrier (Optional): 4 or 6 mil poly or V-Force over 1/4" min., 4' x 8' boards DensDeck	Cover Board:  1/2" min., 4' x 4' boards  DensDeck Prime Securock Insulation:  11/2"-12", 4' x 8' boards  ISO 95+ GL	Cover Board: 24 HD Fasteners per board Insulation: Common Fastened	Coating/Surfacing (Optional): Acrylic Base Coat for Asphalt AcryliTop PC-100 Coat Cap Ply: APP 180 FR APP 180 FR UW APP Premium FR APP Premium FR APP Premium FR UW Base Ply: APP 160	<u>Cap:</u> Torched <u>Base:</u> Torched	328967- 169858-0
PSF: 195 IF: 1 EF: A Slope: 1½" Hail: SH Steel (WR): 20-18 ga 72" span 33 ksi 22 ga, 67" span 33 ksi 22-18 ga 72" span 80 ksi	Thermal Barrier (Optional): 4 or 6-mil poly or V-Force over 1/4" min., 4' x 8' boards DensDeck	Cover Board:  1/2" min., 4' x 4' boards DensDeck Prime Securock  Insulation:  11/2"-12", 4' x 4' boards ISO 95+ GL	Cover Board: 24 HD Fasteners per board Insulation: Common Fastened	Coating/Surfacing (Optional): Acrylic Base Coat for Asphalt AcryliTop PC-100 Coat  Cap Ply: APP 180 FR APP 180 FR UW APP Premium FR APP Premium FR UW  Base Ply: APP 160	<u>Cap:</u> Torched <u>Base:</u> Torched	311554- 169858-0

# APP – 2 Ply – Cap Torched w/ MB Base – Cover Board/Insulation Attached – Steel Deck

Uplift	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 75  IF: 1 EF: C Slope: ½" Hail: SH Steel: 22-16 ga 72" span 33 ksi	None	Insulation: 1½"-12", 4' x 8' boards ISO 95+ GL	Preliminary	Cap Ply: APP 160 Cool APP 170 Cool APP 180 Cool APP 180 FR Cool APP 180 FR Cool UW Base Sheet: Channel Venting MB Base	Cap Ply: Multi-Purpose MB Cold Adhesive Base Sheet: HD Fasteners/Plates Lap: 32" o.c., 18" o.c. Field: (2) rows, 12" o.c., Staggered	127679- 127667-0
PSF: 90  IF: 1  EF: C  Slope: ½"  Hail: SH  22-16 ga 72" Span 33 ksi	None	Insulation: 1½"-4", 4' x 4' boards ISO 95+ GL	Pre-securement	Cap: APP 160 APP 170 APP 180 APP 180 FR APP 180 FR UW Base Sheet: Channel Venting Base MB Base	Cap: Torch  Base Sheet: HD Fasteners/Plates Row: 35.4", 18" o.c. Field: 1 Row Staggered	61105- 48953-0
PSF: 90 IF: 1 EF: C Slope: ½" Hail: SH 22-16-ga 72" Span 33 ksi	None	Insulation: 2.3"-12", 4' x 4' boards ISO 95+ GL	Pre-securement	Cap: APP 160 COOL APP 170COOL APP 180 COOL APP 180 FR COOL APP 180 FR COOL UW Base Sheet: Channel Venting Base MB Base	Cap: Multi-Purpose MB Cold Adhesive  Base Sheet: HD Fasteners/Plates Row: 35.3", 12" o.c. Field: 2 Rows, 12" o.c. Staggered	390311- 258145-0



#### APP – 2 Ply – Cap/Base Torched – Cover Board/Insulation Attached – Concrete Deck

Uplift	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 90 IF: NC EF: C Slope: ½" Hail: SH 2,500 psi min. 2" thick min.	Vapor Retarder ( <u>Optional):</u> V-Force (SA)	Insulation: 1½"-12", 4' x 4' boards ISO 95+ GL	Pre-securement	Cap: APP 160 APP 170 APP 180 APP 180 FR APP 180 FR UW Base Sheet: Channel Venting Base MB Base	Cap: Torch  Base Sheet: HD or Concrete Drive Fasteners/Plates Row: 35.4", 18" o.c. Field: 1 Row Staggered	278406- 48953-0
PSF: 90 IF: NC EF: C Slope: ½" Hail: SH 2,500 psi min. 2" thick min.	Vapor Retarder ( <u>Optional):</u> V-Force (SA)	Insulation: 1½"-12", 4' x 4' boards ISO 95+ GL	Pre-securement	Cap: APP 160 APP 170 APP 180 APP 180 FR COOL APP 180 FR COOL UW Base Sheet: Channel Venting Base, MB Base	Cap: MB Cold Base Sheet: HD or Concrete Drive Fasteners/Plates Row: 35.4", 12" o.c. Field: 2 Rows 12" o.c. Staggered	278479- 258145-0

#### APP - 2 Ply - Cap Torched w/ MB Base - Cover Board/Insulation Attached - Concrete Deck

Uplift	Vapor Barrier/	Cover Board/	Cover Board/	Membrane	Membrane	RoofNav
	Thermal Barrier	Insulation	Insulation Attachment	Options	Attachment	Number
PSF: 240 IF: NC EF: C Slope: ½" Hail: SH 2,500 psi min. 2" thick min.	None	None	None	<u>Cap:</u> APP 160 APP 170 APP 180 APP 180 FR APP 180 FR UW <u>Base Ply:</u> MB Base	Cap: Torched Base Ply: Hot Asphalt  Concrete Primer, Asphaltic, Permeable	61126- 48409-0

#### APP – Hybrid – Cover Board/Insulation – Concrete Deck

Uplift	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 90 IF: NC EF: C Slope: ½" Hail: SH 2,500 psi min. 2" thick min.	Concrete Primer, Asphaltic, Permeable	Cover Board: 1/2" min., 4' x 4' boards FiberTop E Structodek HD Insulation: 11/2"-36", 4' x 4' boards ISO 95+ GL	Cover Board: 12" o.c. beads ISO Fix II  Insulation: 12" o.c. beads ISO Fix II	<u>Cap:</u> APP 160, APP 170 APP 180 APP 180 FR APP 180 FR UW <u>Ply:</u> (2) Type IV or VI	<u>Cap:</u> Torched <u>Ply:</u> Hot Asphalt	176898- 48985-0
PSF: 465 IF: NC EF: C Slope: ½" Hail: SH 2,500 psi min. 2" thick min.	None	Cover Board:  1/4" min., 4' x 4' boards DensDeck Prime Securock Insulation:  1"-36", 4' x 4' boards ISO 95+ GL/ RESISTA	Cover Board: 12" o.c. beads ISO Spray R  Insulation: 12" o.c. beads ISO Spray R	Cap: APP 160, APP 170 APP 180, APP 180 FR APP 180 FR UW APP Premium FR APP Premium FR UW Ply: APP 160, APP 170	<u>Cap:</u> Torched <u>Base:</u> Torched	308098- 207187-0
PSF: 480 IF: NC EF: C Slope: ½" Hail: SH 2,500 psi min. 2" thick min.	None	Cover Board: 1/4" min., 4' x 4' boards DensDeck Prime Securock  Insulation: 1"-36", 4' x 4' boards ISO 95+ GL/RESISTA	Cover Board: 12" o.c. beads ISO Spray R  Insulation: 12" o.c. beads ISO Spray R	Cap: APP 160, APP 170 APP 180, APP 180 FR APP 180 FR UW APP Premium FR APP Premium FR UW Base: MB Base (1) Type IV or VI	<u>Cap:</u> Torched <u>Base:</u> Hot Asphalt	306541- 297075-0

#### APP - Hybrid - 3 Ply - Cover Board/Insulation - LWIC Deck

Uplift	Cover Board/ Insulation	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 90  IF: 1 EF: C Slope: ½" Hail: SH  Form Deck: See Listing  Structure: Steel	Coating/Surfacing: Celcore PVA Curing Compound  LWIC: Celcore, 200 psi, min. 2" thick  Insulation: EPS, 1"-12"  LWIC: Celcore, 200 psi, min. 0.125" thick	<u>Cap:</u> APP 160, APP 170 APP 180, APP 180 FR APP 180 FR UW <u>Base:</u> APP 160 APP 170 <u>Base Sheet:</u> APP 160 APP 80 Glass Base Channel Venting Base	Cap Ply: Torched  Base Ply: Torched  Base Sheet: 1.2"/1.7" LWC Base Ply Fasteners Lap: 36.4" o.c. @ 7" o.c. Field Rows: 2 Staggered @ 7" o.c.	62275- 263335-50912
PSF: 90  IF: 1 EF: C Slope: ½" Hail: SH  Form Deck: See Listing  Structure: Steel	Coating/Surfacing: Celcore PVA Curing Compound  LWIC: Celcore, 200 psi, min. 2" thick  Insulation: EPS, 1"-12"  LWIC: Celcore, 200 psi, min. 0.125" thick	Cap: APP 160, APP 170 APP 180, APP 180 FR APP 180 FR UW APP 180 UW Base: MB Base, SBS Poly Base SBS Premium Base SBS Smooth (1) Type IV or VI Base Sheet: APP 160, APP 80 Glass Base Channel Venting Base MB Base, SBS Base SBS Poly Base SBS Premium Base SBS Premium Base SBS Premium Base SBS Premium Base	Cap Ply: Torched  Base Ply: Hot Asphalt  Base Sheet: 1.2"/1.7" LWC Base Ply Fasteners Lap: 36.4" o.c. @ 7" o.c. Field Rows: 2 Staggered @ 7" o.c.	62226-48984- 50912

### APP - 2 Ply - Cap/Base Cold - Cover Board/Insulation Attached - Steel Deck

Uplift	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 60  IF: 1  EF: C  Slope: ½"  Hail: SH  Steel  22-16 ga 72" span, 33 ksi	Thermal (Optional): 4' x 8' boards 1/4" DensDeck 3/6" Securock	Insulation: 1½"-12", 4' x 8' boards ISO 95+ GL	<u>Insulation:</u> 16 HD fasteners per board	Cap Ply: APP 160 Cool APP 170 Cool APP 180 Cool APP 180 FR Cool APP 180 FR Cool APP 180 FR Cool UW  Base Ply: MB Base	Cap Ply: Multi-Purpose MB Cold Adhesive  Base Ply: Multi-Purpose MB Cold Adhesive	259567- 259562-0
PSF: 75  IF: 1  EF: C  Slope: ½"  Hail: SH  Steel:  22-16 ga 72" span, 33 ksi	Thermal (Optional): 4' x 8' boards 1/4" DensDeck 3/6" Securock	Insulation: 2"-12", 4' x 8' boards ISO 95+ GL/RESISTA	<u>Insulation:</u> 8 HD fasteners per board	Cap Ply: APP 160 Cool APP 170 Cool APP 180 FR Cool APP 180 FR Cool APP 180 FR Cool APP 180 FO Cool APP 180 FO Cool APP 170 Cool MB Base	Cap Ply: Multi-Purpose MB Cold Adhesive  Base Ply: Multi-Purpose MB Cold Adhesive	385970- 323687-0
PSF: 90  IF: 1  EF: C  Slope: ½"  Hail: SH  Steel: 22-16 ga 72" span, 33 ksi	Thermal (Optional): 4' x 8' boards 1/4" DensDeck 3/8" Securock	Insulation: 2.2"-12", 4' x 8' boards ISO 95+ GL /RESISTA	<u>Insulation:</u> 8 HD fasteners per board	Cap Ply: APP 160 Cool APP 170 Cool APP 180 Cool APP 180 FR Cool APP 180 FR Cool APP 180 FR Cool UW Base Ply: MB Base, Type IV or VI	Cap Ply: Multi-Purpose MB Cold Adhesive Base Ply: Multi-Purpose MB Cold Adhesive	385367- 127664-0



#### SBS – 2 Ply – Cap/Base Cold – Cover Board/Insulation Attached – Steel Deck

Uplift	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 75  IF: 1 EF: A Slope: 75 Hail: SH  Steel: 22-16 ga 72" span 33 ksi	Thermal (Optional): 4' x 8' boards 1/4" DensDeck 3/6" Securock	Insulation: 1½"-12", 4'x8' boards ISO 95+ GL	<u>Insulation:</u> 16 HD fasteners per board	Coating/Surfacing (Optional): Acrylic Base Coat for Asphalt AcryliTop PC-100 Coat Cap Ply: SBS FR Cap SBS FR Cap UW SBS Premium FR SBS Premium FR UW Base Ply: MB Base, Type IV or IV SBS Base, SBS Poly Base SBS Premium Base	Cap Ply: Multi-Purpose MB Cold Adhesive  Base Ply: Multi-Purpose MB Cold Adhesive	47708- 50688-0
PSF: 90  IF: 1 EF: A Slope: 1" Hail: SH Steel: 22-16 ga 72" span, 33 ksi	Thermal (Optional): 4' x 8' boards 1/4" DensDeck 3/6" Securock	Insulation: 1½"-12", 4' x 8' boards ISO 95+ GL	<u>Insulation:</u> 16 HD fasteners per board	Cap Ply: SBS FR Cap SBS FR Cap UW SBS Glass FR SBS Glass FR UW SBS Premium FR SBS Premium FR UW Base Ply: SBS Base, SBS Poly Base SBS Premium Base	Cap Ply: Multi-Purpose MB Cold Adhesive  Base Ply: Multi-Purpose MB Cold Adhesive	260050- 259982- 0
PSF: 255  IF: 1  EF: A  Slope: 1"  Hail: SH  Steel (WR):  22-18 ga 72" span, 33 ksi	Thermal (Optional): 4' x 8' boards 1/4" DensDeck 3/6" Securock	Cover Board: 1/4" min., 4' x 8' boards DensDeck Prime Securock Insulation: 2.2"-12", 4' x 8' boards ISO 95+ GL	<u>Insulation:</u> 16 HD fasteners per board	Cap Ply: SBS FR Cap SBS FR Cap UW SBS Premium FR SBS Premium FR UW Base Ply: MB Base, SBS Base SBS Poly Base SBS Premium Base (1) Type IV or VI	Cap Ply: Multi-Purpose MB Cold Adhesive  Base Ply: Multi-Purpose MB Cold Adhesive	317524- 50688-0

# SBS – 2 Ply – Cap/Base Cold – Cover Board Adhered/Insulation Attached – Steel Deck

Uplift	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 75  IF: 1 EF: C Slope: 5" Hail: SH Steel: 22-16 ga 72" span 33 ksi	Vapor Barrier (Optional): 4-6 mil poly or V-Force (SA) 1/4" min. DensDeck SA Primer may be required.	Cover Board:  1/4" min., min. 4' x 4' boards DensDeck Prime Securock  Insulation: 2"-12", 4' x 8' boards ISO 95+ GL	Cover Board: 12" o.c. beads ISO Spray R ISO Twin Pack  Insulation: 8 HD fasteners per board	Cap Ply: SBS Cap SBS Cap UW SBS Premium SBS Premium UW Base Ply: MB Base SBS Poly Base SBS Premium Base	Cap Ply: Multi-Purpose MB Cold Adhesive  Base Ply: Multi-Purpose MB Cold Adhesive	236853- 236854-0



#### SBS - 2 Ply - MB Cold Adhesive - Cover Board/Insulation Attached - Concrete Deck

Uplift	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 60  IF: NC EF: A Slope: ½" Hail: SH  2,500 psi min. 2" thick min.	Vapor Barrier (Optional):  V-Force (SA), Primer may be required.	Insulation: 1½"-12", 4' x 8' boards ISO 95+ GL	<u>Insulation:</u> 16 HD fasteners per board	Cap ply: SBS FR Cap SBS FR Cap UW SBS Glass FR SBS Glass FR UW SBS Premium FR SBS Premium FR UW Base Ply: MB Base, SBS Base SBS Poly Base SBS Premium Base SBS Premium Poly Base SBS SBS Smooth	Cap Ply: Multi-Purpose MB Cold Adhesive  Base Ply: Multi-Purpose MB Cold Adhesive	390658- 389944-0
PSF: 75  IF: NC EF: A Slope: ½" Hail: SH  2,500 psi min. 2" thick min.	Vapor Barrier (Optional):  V-Force (SA), Primer may be required.	Insulation: 14' x 8' "-12", 4' x 8' boards ISO 95+ GL	<u>Insulation:</u> 16 HD fasteners per board	Cap ply: SBS FR Cap SBS FR Cap UW SBS Glass FR SBS Glass FR UW SBS Premium FR SBS Premium FR UW Base Ply: MB Base, SBS Base SBS Poly Base SBS Premium Base SBS Premium Poly Base SBS Smooth	Cap Ply: Multi-Purpose MB Cold Adhesive  Base Ply: Multi-Purpose MB Cold Adhesive	390660- 389944-0
PSF: 90  IF: NC EF: A Slope: 1" Hail: SH  2,500 psi min. 2" thick min.	Vapor Barrier (Optional):  V-Force (SA), Primer may be required.  SBS Torch Torched	Insulation: 1½"-12", 4' x 8' boards ISO 95+ GL	<u>Insulation:</u> 16 HD fasteners per board	Coating/Surfacing (Optional): Acrylic Base Coat for Asphalt AcryliTop PC-100 Coat Cap ply: SBS FR Cap SBS FR Cap UW SBS Glass FR SBS Glass FR UW SBS Premium FR SBS Premium FR UW Base Ply: SBS Base, SBS Poly Base SBS Premium Base	Cap Ply: Multi-Purpose MB Cold Adhesive  Base Ply: Multi-Purpose MB Cold Adhesive	260054- 259982-0

## SBS – 2 Ply – MB Cold Adhesive – Cover Board/Insulation Adhered – Concrete Deck

Uplift	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 135  IF: NC EF: A Slope: ½" Hail: SH  2,500 psi min. 2" thick min.	Cover Board:  1½"-2.5", 4' x 4' boards ISOGARD HD Comp.  Insulation:  1½"-36", 4' x 4' boards ISO 95+ GL	Cover Board: 12" o.c. beads ISO Stick  Insulation: 12" o.c. beads ISO Stick	Cap ply:  SBS FR Cap  SBS FR Cap UW  SBS Glass FR  SBS Glass FR UW  SBS Premium FR  SBS Premium FR UW  Base Ply:  MB Base  SBS Base  SBS Poly Base  SBS Premium Base  SBS SMOoth	Cap Ply: Multi-Purpose MB Cold Adhesive  Base Ply: Multi-Purpose MB Cold Adhesive	354339- 354337-0



# SBS – 2 Ply – MB Cold Adhesive – Cover Board/Insulation Adhered – Concrete Deck

Uplift	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 135  IF: NC EF: A Slope: 1" Hail: SH  2,500 psi min. 2" thick min.	Insulation (Top): 1"-4", 4' x 4' boards ISO 95+ GL/RESISTA  Insulation (Bottom): 1"-36", 4' x 4' boards ISO 95+ GL/RESISTA	Insulation (Top): 12" o.c. beads ISO Spray R Insulation (Bottom): 12" o.c. beads ISO Spray R	Cap ply: SBS FR Cap SBS FR Cap UW SBS Glass FR SBS Glass FR UW SBS Premium FR SBS Premium FR UW Base Ply: SBS Base SBS Poly Base SBS Premium Base SBS Smooth	Cap Ply: Multi-Purpose MB Cold Adhesive  Base Ply: Multi-Purpose MB Cold Adhesive	309240- 295652-0
PSF: 765  IF: NC EF: A Slope: 1" Hail: SH  2,500 psi min. 2" thick min.	Cover Board:  1/4" min., 4' x 4' boards Securock  Insulation: 1/2"-36", 4' x 4' boards ISO 95+ GL	Primer (Optional): Asphaltic, Permeable Cover Board: Hot Asphalt (Full) 12" o.c. beads ISO Fix II ISO Stick Insulation: Hot Asphalt (Full) 12" o.c. beads ISO Fix II	Coating/Surfacing (Optional): Acrylic Base Coat for Asphalt AcryliTop PC-100 Coat Cap ply: SBS FR Cap SBS FR Cap UW SBS Premium FR SBS Premium FR UW Base Ply: MB Base, SBS Base SBS Poly Base SBS Premium Base (1) Type IV or VI	Cap Ply: Multi-Purpose MB Cold Adhesive  Base Ply: Multi-Purpose MB Cold Adhesive	212168- 50688-0
PSF: 765  IF: NC EF: A Slope: 1" Hail: SH  2,500 psi min. 2" thick min.	Cover Board: 1/4" min., 4' x 4' boards Securock  Insulation: 1/2"-36", 4' x 4' boards ISO 95+ GL	Primer (Optional): Asphaltic, Permeable Cover Board: Hot Asphalt (Full) 12" o.c. beads ISO Fix II ISO Stick Insulation: Hot Asphalt (Full) 12" o.c. beads	Coating/Surfacing (Optional): Acrylic Base Coat for Asphalt AcryliTop PC-100 Coat Cap ply: SBS FR Cap SBS FR Cap UW SBS Premium FR SBS Premium FR UW Base Ply: SBS Base, SBS Poly Base SBS Premium Base SBS Smooth	Cap Ply: Multi-Purpose MB Cold Adhesive  Base Ply: Multi-Purpose MB Cold Adhesive	212174- 132170-0

## SBS – 2 Ply – MB Cold Adhesive – No Cover Board/Insulation – Concrete Deck

Uplift	Deck Primer	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 285  IF: NC EF: A Slope: 1" Hail: SH  2,500 psi min. 2" thick min.	None	Coating/Surfacing (Optional): Acrylic Base Coat for Asphalt AcryliTop PC-100 Coat Cap ply: SBS FR Cap SBS FR Cap UW SBS Premium FR SBS Premium FR UW Base Ply: SBS Base, SBS Poly Base SBS Premium Base, SBS Smooth	Cap Ply: Multi-Purpose MB Cold Adhesive  Base Ply: Multi-Purpose MB Cold Adhesive	132181- 132170-0



#### SBS – 2 Ply – MB Cold Adhesive – No Cover Board/Insulation – Concrete Deck

Uplift	Deck Primer	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 360  IF: NC EF: A Slope: 1" Hail: SH  2,500 psi min. 2" thick min.	<u>Deck Primer:</u> Asphaltic Permeable	Coating/Surfacing (Optional): Acrylic Base Coat for Asphalt AcryliTop PC-100 Coat Cap ply: SBS FR Cap SBS FR Cap UW SBS Glass FR SBS Glass FR SBS Premium FR SBS Premium FR UW Base Ply: SBS Base SBS Poly Base SBS Premium Base	Cap Ply: Multi-Purpose MB Cold Adhesive  Base Ply: Multi-Purpose MB Cold Adhesive	260074- 259982-0

#### APP -Torched - BaseGard SA- Cover Board/Insulation Attached - Steel Deck

Uplift	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 90  IF: 1  EF: C  Slope: ½"  Hail: SH  Steel: 22-16 ga 72" span, 33 ksi	Vapor Barrier (Optional):  4-6 mil poly OR V-Force (SA) ½" min. DensDeck Primer may be required.	Insulation: 2"-12", min. 4' x 4' boards ISO 95+ GL/ RESISTA	<u>Insulation</u> : 8 HD fasteners per board	<u>Cap Ply:</u> APP 160 APP 170 APP 180 APP 180 FR APP 180 FR UW APP 180 UW Base Ply: BaseGard SA	<u>Cap Ply:</u> Torched <u>Base Ply:</u> Self-Adhered	315255- 315142-0
PSF: 90  IF: 1  EF: C  Slope: ½"  Hail: SH  Steel: 22-16 ga 72" span, 33 ksi	Vapor Barrier (Optional):  4-6 mil poly or V-Force (SA) ½" min. DensDeck Primer may be required.	Insulation: 1½"-12", min. 4' x 4' boards ISO 95+ GL/ RESISTA	<u>Insulation</u> : 16 HD fasteners per board	Cap Ply: APP 160 APP 170 APP 180 APP 180 FR APP 180 FR UW APP 180 UW Base Ply: BaseGard SA	Cap Ply: Torched Base Ply: Self-Adhered	315186- 315142-0

#### APP -Torched - BaseGard SA- Cover Board/Insulation Attached - Concrete Deck

Uplift	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 90 IF: NC EF: C Slope: ½" Hail: SH 2,500 psi min. 2" thick min.	None	Cover Board:  ½" min., min. 4' x 4' boards DensDeck Prime Securock Insulation:  1.½"-12", min. 4' x 4' boards ISO 95+ GL/ RESISTA	Cover Board: 24 HD or Concrete Drive Fasteners per board  Insulation: Common Fastened	Cap Ply: APP 160 APP 170 APP 180 FR APP 180 FR UW APP 180 UW Base Ply: BaseGard SA	<u>Cap Ply:</u> Torched <u>Base Ply:</u> Self-Adhered	315307- 315142-0
PSF: 90 IF: NC EF: C Slope: 1/2" Hail: SH  2,500 psi min. 2" thick min.	Vapor Barrier (Optional): V-Force (SA) or SBS Torch Primer may be required.	Insulation: 1½"-12", min. 4' x 4' boards ISO 95+ GL/ RESISTA	Insulation: 16 HD or Concrete Drive Fasteners per board	Cap Ply: APP 160 APP 170 APP 180 APP 180 FR APP 180 FR UW APP 180 UW Base Ply: BaseGard SA	<u>Cap Ply:</u> Torched <u>Base Ply:</u> Self-Adhered	315199- 315142-0



#### APP -Torched - BaseGard SA- Cover Board/Insulation Adhered - Concrete Deck

Uplift	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 165  IF: NC EF: A Slope: 1½" Hail: SH  2,500 psi min. 2" thick min.	None	Cover Board:  ½" min., min. 4' x 4' boards DensDeck Prime Securock  Insulation:  1½"-36", min. 4' x 4' boards ISO 95+ GL/RESISTA	Cover Board: 12" o.c. beads ISO Spray R ISO Twin Pack  Insulation: 12" o.c. beads ISO Twin Pack	Coating/Surfacing (Optional): Acrylic Base Coat for Asphalt AcryliTop PC-100 Coat Cap Ply: APP 180 FR APP 180 FR UW APP Premium FR APP Premium FR APP Premium FR UW Base Ply: BaseGard SA	Cap Ply: Torched Base Ply: Self-Adhered	316697- 315147-0
PSF: 165 IF: NC EF: C Slope: 1/2" Hail: SH  2,500 psi min. 2" thick min.	None	Insulation: 1½"-36", min. 4' x 4' boards ISO 95+ GL/RESISTA	Insulation: 8" o.c. beads ISO Fix II  Substrate Primer: Concrete Primer, Asphaltic, Permeable	Cap Ply: APP 160 APP 170 APP 180 APP 180 FR APP 180 FR UW APP 180 UW Base Ply: BaseGard SA	Cap Ply: Torched Base Ply: Self-Adhered	315297- 315142-0
PSF: 165 IF: NC EF: C Slope: ½" Hail: SH  2,500 psi min. 2" thick min.	None	Cover Board: 1/2" min., 4' x 4' boards DensDeck Prime Securock  Insulation: 11/2"-36", min. 4' x 4' boards ISO 95+ GL/RESISTA	Cover Board: 12" o.c. beads ISO Spray R ISO Twin Pack  Insulation: 12" o.c. beads ISO Twin Pack	<u>Cap Ply:</u> APP 160 APP 170 APP 180 APP 180 FR APP 180 FR UW APP 180 UW <u>Base Ply:</u> BaseGard SA	Cap Ply: Torched Base Ply: Self-Adhered	315309- 315142-0
PSF: 435 IF: NC EF: C Slope: ½" Hail: SH  2,500 psi min. 2" thick min.	None	Insulation: ½", 4' x 4' boards ISOGARD HD	<u>Insulation:</u> 4" o.c. beads ISO Fix II	<u>Cap Ply:</u> APP 160 APP 170 APP 180 APP 180 FR APP 180 FR UW APP 180 UW Base Ply: BaseGard SA	Cap Ply: Torched Base Ply: Self-Adhered	315427- 315142-0

#### APP -Torched - BaseGard SA- No Insulation - Concrete Deck

Uplift	Substrate Primer	Vapor Barrier/ Thermal Barrier	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 270  IF: NC EF: C Slope: ½" Hail: SH  2,500 psi min. 2" thick min.	Concrete Primer Asphaltic Permeable	None	<u>Cap Ply:</u> APP 160 APP 170 APP 180 APP 180 FR APP 180 FR UW APP 180 UW <u>Base Ply:</u> BaseGard SA	<u>Cap Ply:</u> Torched <u>Base Ply:</u> Self-Adhered	315281- 315142-0



## PP -Torched - BaseGard SA- Cover Board/Insulation - Concrete Deck - Re-Cover/Re-Roof

Uplift	Vapor Barrier/ Thermal Barrier	Cover Board/ Insulation	Cover Board/ Insulation Attachment	Membrane Options	Membrane Attachment	RoofNav Number
PSF: 90  IF: NC EF: C Slope: ½" Hail: SH  Concrete Re-Cover	None	Insulation: 1½"-36", 4' x 4' boards ISO 95+ GL/RESISTA	Insulation: 8" o.c. beads, ISO Fix II	Cap Ply: APP 160 APP 170 APP 180 APP 180 FR APP 180 FR APP 180 FR UW APP 180 UW Base Ply: BaseGard SA	<u>Cap Ply:</u> Torched <u>Base Ply:</u> Self-Adhered	315298- 315142-0
PSF: 225  IF: NC EF: C Slope: ½" Hail: SH  Concrete Re-Roof	None	Insulation (Top): ½"-4", 4' x 4' boards ISO 95+ GL/RESISTA  Insulation (Bottom): 1½"-36", 4' x 4' boards ISO 95+ GL/RESISTA	Insulation (Top): 12" o.c. beads, ISO Twin Pack  Insulation (Bottom): 12" o.c. beads, ISO Twin Pack	Cap Ply: APP 160 APP 170 APP 180 APP 180 FR APP 180 FR UW APP 180 FR UW Base Ply: BaseGard SA	<u>Cap Ply:</u> Torched <u>Base Ply:</u> Self-Adhered	315303- 315142-0

