



FleeceBACK EPDM, TPO and PVC
Adhered Roofing Systems with HydroBond Bonding Adhesive

Code Approval Guide
January, 2017

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UL Approval - Non-Combustible - ANSI/UL 790 Spread of Flame Test (Class A)

FleeceBACK Adhered with HydroBond Bonding Adhesive (1)

Membrane Type:
 Sure-Seal FleeceBACK - 100, 115 or 145 membrane (black EPDM)
 Sure-White FleeceBACK - 100, 115 or 145 membrane (white EPDM)
 Sure-Weld FleeceBACK - 100, 115 or 135 membrane (white, tan or gray TPO)
 Sure-Flex PVC FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)

Non-Combustible: Steel; St. Concrete; Gypsum; Tectum (Min. 2" thick)

System ID	Deck Type	Insulation	Cover Board	Maximum Slope				
				Sure-Seal	Sure-White	Sure-Weld	Sure-Flex PVC FRS	Sure-Flex PVC KEE HP FRS
1	Non-Combustible	InsulBase, SecurShield, SecurShield HD, SecurShield HD Plus or SecurShield HD Composite- any combination, any thickness	N/A	1/2"	3/4" Class C	1/2"	2-1/2"	3/4"
2		Any UL Classified EPS or XPS Insulation, any thickness	Minimum 1/2" SecurShield HD, SecurShield HD Plus or SecurShield HD Composite	1"	1"	1/2"	2-1/2"	3/4"
3		Minimum 1" layer of InsulBase, SecurShield, or SecurShield HD Composite over any UL Classified EPS or XPS Insulation, maximum 1.25 pcf, any thickness	N/A	1/2"	3/4" Class C	1/2"	2-1/2"	3/4"
4		Insulfoam HD Composite or Insulfoam HD Composite over Insulfoam EPS, any thickness and density.	N/A	1/2"	3/4" Class C	1/2"	2-1/2"	3/4"
5		Any UL Classified Insulation, any thickness (OPTIONAL)	Minimum 1/4" SECUROCK® Gypsum-Fiber Roof Boards	1"	1"	2"	3"	Unlimited
6		Any UL Classified Insulation, any thickness (OPTIONAL)	Minimum 1/4" DensDeck Prime Roof Boards	1"	1"	2"	3"	Unlimited
7		Any UL Classified Insulation, any thickness (OPTIONAL)	Minimum 1/2" HP Recovery Board	1"	1"	2"	3"	1-1/2"
8		Any UL Classified Insulation, any thickness (OPTIONAL)	Minimum 7/16" APA Rated OSB or minimum 1.5" StormBase	1"	1"	2"	3"	1-1/2"

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**UL Approval - Combustible - ANSI/UL 790 Spread of Flame Test (Class A)
FleeceBACK Adhered with HydroBond Bonding Adhesive (2)**

Membrane Type:
 Sure-Seal FleeceBACK - 100, 115 or 145 membrane (black EPDM)
 Sure-White FleeceBACK - 100, 115 or 145 membrane (white EPDM)
 Sure-Weld FleeceBACK - 100, 115 or 135 membrane (white, tan or gray TPO)
 Sure-Flex PVC FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)

Combustible: 7/16-in. (minimum) thick non-veneer APA-rated sheathing (oriented strand board panels, structural particleboard panels, composite panels or waferboard panels); 15/32-in. (minimum) thick plywood 3/4 in. (minimum) wood; Tectum (less than 2" thick)

System ID	Thermal Barrier/Base Sheet	Insulation	Cover Board (3)	Maximum Slope				
				Sure-Seal	Sure-White	Sure-Weld	Sure-Flex PVC FRS	Sure-Flex PVC KEE HP FRS
Combustible (7) - ANSI/UL 790 Spread of Flame Test-Class A								
1	Minimum 1/4" SECUROCK® Gypsum Fiber or Glass Mat Roof Board (2)	Any UL Classified Carlisle Polyisocyanurate Insulation, any combination, any thickness.	N/A	1/2"	3/4" Class C	1/2"	2-1/2"	3/4"
2	Minimum 1/4" DensDeck or DensDeck Prime Roof Boards (2)	Any UL Classified Carlisle Polyisocyanurate Insulation, any combination, any thickness.	N/A	1"	1"	1/2"	2-1/2"	3/4"
3	N/A	Minimum 3" layer or two layers of 1.5" SecurShield or SecurShield HD Composite. (2)(4)	N/A	1/2"	1/2"	1/2"	1/2"	1/2"
4	N/A	Minimum 2.5" layer SecurShield or SecurShield HD Composite over a 2.5" (minimum) layer of Carlisle InsulBase Insulation. (2)(5)	N/A	1/2"	1/2"	1/2"	1/2"	1/2"
5	Carlisle FR Base Sheet	Minimum 1.9" layer of SecurShield or SecurShield HD Composite. (2)(5)	N/A	1/2"	1/2"	1/2"	1/2"	1/2"
6	N/A	Minimum 2.5" layer of any UL Classified Carlisle Polyisocyanurate Insulation, any combination. (2)	Minimum 1/2" SecurShield HD or SecurShield HD Plus	1/2"	1/2"	1/2"	1/2"	1/2"
7	Carlisle FR Base Sheet	Minimum 1.4" layer of any UL Classified Carlisle Polyisocyanurate Insulation, any combination. (2)	Minimum 1/2" SecurShield HD or SecurShield HD Plus	1/2"	1/2"	1/2"	1/2"	1/2"
8	N/A	Minimum 1" layer of SecurShield CD. (2)(6)	N/A	1/2"	1/2"	1/2"	1/2"	1/2"
9	N/A	Minimum 4" layer of any UL Classified EPS Insulation. (2)(7)	Minimum 1/2" SecurShield HD or SecurShield HD Plus	1/2"	1/2"	1/2"	1/2"	1/2"
10	N/A	Minimum 1" layer of SecurShield CD over a minimum 4.5" layer of any UL Classified EPS Insulation. (2)(7)	N/A	1/2"	1/2"	1/2"	1/2"	1/2"
11	N/A	Minimum 1/2" layer of Insulfoam HD Composite over a minimum 4" layer of Insulfoam EPS. (2)(7)	N/A	1/2"	1/2"	1/2"	1/2"	1/2"
12	N/A	Minimum 2" layer of Insulfoam HD Composite over a minimum 2.5" layer of Insulfoam EPS. (2)(7)	N/A	1/2"	1/2"	1/2"	1/2"	1/2"
13	N/A	Any UL Classified Carlisle Polyisocyanurate Insulation, any combination, any thickness.	Minimum 1/4" SECUROCK® Gypsum Fiber Roof Board (2)	1"	1"	2"	3"	3"
14	N/A	Any UL Classified Insulation, any thickness (OPTIONAL)	Minimum 3/8" SECUROCK® Gypsum Fiber Roof Board (2)	1"	1"	2"	2"	2"

**UL Approval - Combustible - ANSI/UL 790 Spread of Flame Test (Class A)
FleeceBACK Adhered with HydroBond Bonding Adhesive (2)**

Membrane Type:
 Sure-Seal FleeceBACK - 100, 115 or 145 membrane (black EPDM)
 Sure-White FleeceBACK - 100, 115 or 145 membrane (white EPDM)
 Sure-Weld FleeceBACK - 100, 115 or 135 membrane (white, tan or gray TPO)
 Sure-Flex PVC FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)

Combustible: 7/16-in. (minimum) thick non-veneer APA-rated sheathing (oriented strand board panels, structural particleboard panels, composite panels or waferboard panels); 15/32-in. (minimum) thick plywood 3/4 in. (minimum) wood; Tectum (less than 2" thick)

System ID	Thermal Barrier/Base Sheet	Insulation	Cover Board (3)	Maximum Slope				
				Sure-Seal	Sure-White	Sure-Weld	Sure-Flex PVC FRS	Sure-Flex PVC KEE HP FRS
Combustible (7) - ANSI/UL 790 Spread of Flame Test-Class A								
15	N/A	Any UL Classified Insulation, any thickness (OPTIONAL)	Minimum 1/2" SECUROCK® Gypsum Fiber Roof Board (2)	1"	1"	2"	3"	4"
16	One Ply of Type G2	Any UL Classified Insulation, any thickness (OPTIONAL)	Minimum 1/2" SECUROCK® Gypsum Fiber Roof Board (2)	1"	1"	2"	3"	3"
17	N/A	Any UL Classified Insulation, any thickness (OPTIONAL)	Minimum 1/4" DensDeck Prime Roof Board (2)	1"	1"	2"	3"	Unlimited
18	Three or Two layers of Carlisle FR Base Sheet	Any UL Classified Carlisle Polyisocyanurate Insulation, any combination, any thickness.	N/A	1/2"	3/4" Class C	1/2"	2"	3/4"

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UL Approval - Combustible - ANSI/UL 790 Spread of Flame Test (Class B)
FleeceBACK Adhered with HydroBond Bonding Adhesive (1)

Membrane Type:
 Sure-Seal FleeceBACK - 100, 115 or 145 membrane (black EPDM)
 Sure-White FleeceBACK - 100, 115 or 145 membrane (white EPDM)
 Sure-Weld FleeceBACK - 100, 115 or 135 membrane (white, tan or gray TPO)
 Sure-Flex PVC FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)

Combustible: 7/16-in. (minimum) thick non-veneer APA-rated sheathing (oriented strand board panels, structural particleboard panels, composite panels or waferboard panels); 15/32-in. (minimum) thick plywood 3/4 in. (minimum) wood; Tectum (less than 2" thick)

System ID	Thermal Barrier/Base Sheet	Insulation	Cover Board	Maximum Slope				
				Sure-Seal	Sure-White	Sure-Weld	Sure-Flex PVC FRS	Sure-Flex PVC KEE HP FRS
Combustible - ANSI/UL 790 Spread of Flame Test-Class B								
1	N/A	Minimum 1.9" layer of SecurShield or SecurShield HD Composite. (8)(9)	N/A	1/2"	1/2"	1/2"	1/2"	1/2"
2	G2 Base Sheet (12)	Minimum 1" layer of any UL Classified Carlisle Polyisocyanurate Insulation. (8)	Minimum 1/2" HP Recovery Board (11), SecurShield HD or SecurShield HD Plus	1/2"	1/2"	1/2"	1/2"	1/2"
3	G2 Base Sheet (12)	Minimum 1" layer of SecurShield CD. (8)(10)	N/A	1/2"	1/2"	1/2"	1/2"	1/2"
4	N/A	Minimum 1.4 Polyiso	Minimum 1/2" HP Recovery Board (11), SecurShield HD or SecurShield HD Plus	1/2"	1/2"	1/2"	1/2"	1/2"
5	G2 Base Sheet (12)	1-1/2" Polyisocyanurate	N/A	1/2"	1/2"	1/2"	1/2"	1/2"

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FM Approvals
FleeceBACK™ Adhered Roofing Systems
Membrane Adhered with HydroBond™ Water-Based PVC Bonding Adhesive

SecurShield HD - New Construction

Membrane Type: Sure-Seal FleeceBACK - 100, 115 or 145 membrane (black EPDM)
 Sure-White FleeceBACK - 100, 115 or 145 membrane (white EPDM)
 Sure-Weld FleeceBACK - 100, 115 or 135 membrane (white, tan or gray TPO)
 Sure-Flex PVC FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = FAST 100LV, Flexible FAST, FAST Bag in a Box, FAST Dual Cartridge and FAST Dual Tank
 (FAST Dual Tank can only be used on Steel and Concrete Decking)

Base Insulation Layer (Max. thickness 36")	Base Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Top Insulation Layer	Top Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Rating	Sure-Seal	Sure-White	Sure-Weld	Sure-Flex PVC FRS	Sure-Flex PVC KEE HP FRS
					RoofNAV Number				
Steel Deck (Min. 22 Gauge)									
FM Approved	Loose laid	1/2" SecurShield HD	12 (2.67 sq. ft)	1-75	-	-	-	-	-
FM Approved	Loose laid	1/2" SecurShield HD	16 (2 sq. ft)	1-90	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	10 (3.2 sq. ft.)	1/2" SecurShield HD	6" ribbons of FAST	1-90	375819-0-0	-	375831-0-0	353920-0-0	375797-0-0
Min. 2" InsulBase Polyiso	8 (4 sq. ft)	1/2" SecurShield HD	6" ribbons of FAST	1-90	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	18 (1.8 sq. ft.)	1/2" SecurShield HD	6" ribbons of FAST	1-105	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	24 (1.33 sq. ft.)	1/2" SecurShield HD	4" ribbons of FAST	1-120	-	-	-	-	-
Min. 1/2" DensDeck Prime or Securock	16 (2 sq. ft.)	1/2" SecurShield HD over InsulBase Polyiso	6" ribbons of FAST	1-90	-	-	-	-	-
Steel Deck (Min. 22 Gauge) with VapAir Seal 725 TR and Cav-Grip Primer									
Min. 1/2" DensDeck Prime	16 (2 sq. ft.)	1/2" SecurShield HD over InsulBase Polyiso	6" ribbons of FAST	1-90	-	-	-	-	-
Concrete Deck									
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	1/2" SecurShield HD	12" ribbons of FAST	1-120	-	-	-	-	-
Min. 1/2" InsulBase Polyiso	12" ribbons of Olybond 500 BA	1/2" SecurShield HD	12" ribbons of Olybond 500 BA	1-120	-	-	-	-	-
Min. 1/2" InsulBase Polyiso	Hot Asphalt	1/2" SecurShield HD	Hot Asphalt	1-120	-	-	-	-	-
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	1/2" SecurShield HD	12" ribbons of FAST	1-120	-	-	-	-	-
Concrete Deck with VapAir Seal 725 TR and Cav-Grip / 702-LV / 702 Primer									
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	1/2" SecurShield HD	12" ribbons of FAST	1-120 Cav-Grip	375660-0-0	-	-	-	-
				1-120 702-LV	-	-	-	-	-
				1-90 702	-	-	-	-	-

FM Approvals
FleeceBACK™ Adhered Roofing Systems
Membrane Adhered with HydroBond™ Water-Based PVC Bonding Adhesive

SecurShield HD - New Construction

Membrane Type: Sure-Seal FleeceBACK - 100, 115 or 145 membrane (black EPDM)
Sure-White FleeceBACK - 100, 115 or 145 membrane (white EPDM)
Sure-Weld FleeceBACK - 100, 115 or 135 membrane (white, tan or gray TPO)
Sure-Flex PVC FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)
Sure-Flex PVC KEE HP FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = FAST 100LV, Flexible FAST, FAST Bag in a Box, FAST Dual Cartridge and FAST Dual Tank
(FAST Dual Tank can only be used on Steel and Concrete Decking)

Base Insulation Layer (Max. thickness 36")	Base Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Top Insulation Layer	Top Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Rating	Sure-Seal	Sure-White	Sure-Weld	Sure-Flex PVC FRS	Sure-Flex PVC KEE HP FRS
					RoofNAV Number				
Concrete Deck with SureMB 90TG and 120TG Base Torch Applied/Cut-Back Asphalt Primer									
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	1/2" SecurShield HD	12" ribbons of FAST	1-120	-	-	-	-	-
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	1/2" SecurShield HD	12" ribbons of FAST	1-120	393061-0-0	-	393062-0-0	392970-0-0	393060-0-0
Tectum Deck									
Min. 1-1/2" InsulBase Polyiso	Full-Coverage FAST	1/2" SecurShield HD	Full-Coverage FAST	1-120	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	12" ribbons of Olybond 500 BA	1/2" SecurShield HD	12" ribbons of Olybond 500 BA	1-90	-	-	-	-	-
Gypsum Deck Tear-Off									
Min. 1-1/2" InsulBase Polyiso	6" ribbons of FAST	1/2" SecurShield HD	6" ribbons of FAST	1-90	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	12" ribbons of Olybond 500 BA	1/2" SecurShield HD	12" ribbons of Olybond 500 BA	1-90	-	-	-	-	-
(Celcore) Cellular Lightweight Insulating Concrete Over Steel Decking (Min. 22 Gauge)									
FM Approved	Loose laid	1/2" SecurShield HD	12 (2.67 sq. ft)	1-75	-	-	-	-	-
FM Approved	Loose laid	1/2" SecurShield HD	16 (2 sq. ft)	1-90	-	-	-	-	-
-	-	1/2" SecurShield HD	12 (2.67 sq. ft)	1-75	-	-	-	-	-
-	-	1/2" SecurShield HD	16 (2 sq. ft)	1-90	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	4" ribbons of FAST	1/2" SecurShield HD	4" ribbons of FAST	1-120	-	-	-	-	-
-	-	1/2" SecurShield HD	4" ribbons of FAST	1-120	-	-	-	-	-
(Celcore) Cellular Lightweight Insulating Concrete Over Concrete Decking									
Min. 1/2" InsulBase Polyiso	4" ribbons of FAST	1/2" SecurShield HD	4" ribbons of FAST	1-120	-	-	-	-	-
-	-	1/2" SecurShield HD	4" ribbons of FAST	1-120	-	-	-	-	-

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FM Approvals
FleeceBACK™ Adhered Roofing Systems
Membrane Adhered with HydroBond™ Water-Based PVC Bonding Adhesive

SecurShield HD - Recover

Membrane Type: Sure-Seal FleeceBACK - 100, 115 or 145 membrane (black EPDM)
 Sure-White FleeceBACK - 100, 115 or 145 membrane (white EPDM)
 Sure-Weld FleeceBACK - 100, 115 or 135 membrane (white, tan or gray TPO)
 Sure-Flex PVC FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = FAST 100LV, Flexible FAST, FAST Bag in a Box, FAST Dual Cartridge and FAST Dual Tank
 (FAST Dual Tank can only be used on Steel and Concrete Decking)

Base Insulation Layer (Max. thickness 36")	Base Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Top Insulation Layer	Top Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Rating	Sure-Seal	Sure-White	Sure-Weld	Sure-Flex PVC FRS	Sure-Flex PVC KEE HP FRS
					RoofNAV Number				
Steel Deck (Min. 22 Gauge)									
-	-	1/2" SecurShield HD	12 (2.67 sq. ft)	1-75	-	-	-	-	-
-	-	1/2" SecurShield HD	16 (2 sq. ft)	1-90	-	-	-	-	-
-	-	1/2" SecurShield HD	6" ribbons of FAST	1-90	-	-	-	-	-
-	-	1/2" SecurShield HD	4" ribbons of FAST	1-120	-	-	-	-	-
Concrete Deck									
Min. 1/2" InsulBase Polyiso	6" ribbons of FAST	1/2" SecurShield HD	6" ribbons of FAST	1-120	-	-	-	-	-
-	-	1/2" SecurShield HD	6" ribbons of FAST	1-120	-	-	-	-	-
Tectum Deck									
-	-	1/2" SecurShield HD	Full-Coverage FAST	1-120	-	-	-	-	-
-	-	1/2" SecurShield HD	6" ribbons of FAST	1-90	-	-	-	-	-
-	-	1/2" SecurShield HD	4" ribbons of FAST	1-120	-	-	-	-	-
-	-	1/2" SecurShield HD	12" ribbons of Olybond 500 BA	1-90	-	-	-	-	-
Gypsum Deck Tear-Off									
-	-	1/2" SecurShield HD	6" ribbons of FAST	1-90	-	-	-	-	-
-	-	1/2" SecurShield HD	12" ribbons of Olybond 500 BA	1-90	-	-	-	-	-

Note: Recover approvals in this document are based on the following existing roofing system assumption - the existing smooth Asphalt BUR, Modified Bitumen or single-ply system was FM approved at the time of installation. Direct membrane application over existing EPDM single-ply only.

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FM Approvals
FleeceBACK™ Adhered Roofing Systems
Membrane Adhered with HydroBond™ Water-Based PVC Bonding Adhesive

SecurShield HD Plus - New Construction

Membrane Type: Sure-Seal FleeceBACK - 100, 115 or 145 membrane (black EPDM)
 Sure-White FleeceBACK - 100, 115 or 145 membrane (white EPDM)
 Sure-Weld FleeceBACK - 100, 115 or 135 membrane (white, tan or gray TPO)
 Sure-Flex PVC FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = FAST 100LV, Flexible FAST, FAST Bag in a Box, FAST Dual Cartridge and FAST Dual Tank
 (FAST Dual Tank can only be used on Steel and Concrete Decking)

Base Insulation Layer (Max. thickness 36")	Base Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Top Insulation Layer	Top Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Rating	Sure-Seal	Sure-White	Sure-Weld	Sure-Flex PVC FRS	Sure-Flex PVC KEE HP FRS
					RoofNAV Number				
Steel Deck (Min. 22 Gauge)									
FM Approved	Loose laid	1/2" SecurShield HD Plus	8 (4 sq. ft)	1-90	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	Loose laid	1/2" SecurShield HD Plus	18 (1.8 sq. ft)	1-120	375828-0-0	-	375838-0-0	369888-0-0	375810-0-0
Min. 1-1/2" InsulBase Polyiso	10 (3.2 sq. ft.)	1/2" SecurShield HD Plus	6" ribbons of FAST	1-90	375819-0-0	-	375831-0-0	353920-0-0	375797-0-0
Min. 2" InsulBase Polyiso	8 (4 sq. ft)	1/2" SecurShield HD Plus	6" ribbons of FAST	1-90	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	18 (1.8 sq. ft.)	1/2" SecurShield HD Plus	6" ribbons of FAST	1-105	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	24 (1.33 sq. ft.)	1/2" SecurShield HD Plus	4" ribbons of FAST	1-120	-	-	-	-	-
Min. 1/2" DensDeck Prime or Securock	16 (2 sq. ft.)	SecurShield HD Plus over InsulBase Polyiso	6" ribbons of FAST	1-90	-	-	-	-	-
Steel Deck (Min. 22 Gauge) with VapAir Seal 725 TR and Cav-Grip Primer									
Min. 1/2" DensDeck Prime or Securock	16 (2 sq. ft.)	SecurShield HD Plus over InsulBase Polyiso	6" ribbons of FAST	1-90	-	-	-	-	-
Concrete Deck									
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	1/2" SecurShield HD Plus	12" ribbons of FAST	1-120	-	-	-	-	-
Min. 1/2" InsulBase Polyiso	12" ribbons of Olybond 500 BA	1/2" SecurShield HD Plus	12" ribbons of Olybond 500 BA	1-120	-	-	-	-	-
Min. 1/2" InsulBase Polyiso	Hot Asphalt	1/2" SecurShield HD Plus	Hot Asphalt	1-120	-	-	-	-	-
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	1/2" SecurShield HD Plus	12" ribbons of FAST	1-120	-	-	-	-	-
Concrete Deck with VapAir Seal 725 TR and Cav-Grip / 702-LV / 702 Primer									
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	1/2" SecurShield HD Plus	12" ribbons of FAST	1-120 Cav-Grip	375660-0-0	-	-	-	-
Min. 1/2" InsulBase Polyiso	12" ribbons of Olybond 500 BA	1/2" SecurShield HD Plus	12" ribbons of FAST	1-120 702-LV	-	-	-	-	-
Min. 1/2" InsulBase Polyiso	Hot Asphalt	1/2" SecurShield HD Plus	12" ribbons of FAST	1-90 702	-	-	-	-	-

FM Approvals
FleeceBACK™ Adhered Roofing Systems
Membrane Adhered with HydroBond™ Water-Based PVC Bonding Adhesive

SecurShield HD Plus - New Construction

Membrane Type: Sure-Seal FleeceBACK - 100, 115 or 145 membrane (black EPDM)
Sure-White FleeceBACK - 100, 115 or 145 membrane (white EPDM)
Sure-Weld FleeceBACK - 100, 115 or 135 membrane (white, tan or gray TPO)
Sure-Flex PVC FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)
Sure-Flex PVC KEE HP FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = FAST 100LV, Flexible FAST, FAST Bag in a Box, FAST Dual Cartridge and FAST Dual Tank
(FAST Dual Tank can only be used on Steel and Concrete Decking)

Base Insulation Layer (Max. thickness 36")	Base Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Top Insulation Layer	Top Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Rating	Sure-Seal	Sure-White	Sure-Weld	Sure-Flex PVC FRS	Sure-Flex PVC KEE HP FRS
					RoofNAV Number				
Concrete Deck with SureMB 90TG and 120TG Base Torch Applied/Cut-Back Asphalt Primer									
Min. 1-1/2" InsulBase Polyiso	12" ribbons of FAST	1/2" SecurShield HD Plus	12" ribbons of FAST	1-120	-	-	-	-	-
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	1/2" SecurShield HD Plus	12" ribbons of FAST	1-120	393061-0-0	-	393062-0-0	392970-0-0	393060-0-0
Tectum Deck									
Min. 1-1/2" InsulBase Polyiso	Full-Coverage FAST	1/2" SecurShield HD Plus	Full-Coverage FAST	1-120	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	12" ribbons of Olybond 500 BA	1/2" SecurShield HD Plus	12" ribbons of Olybond 500 BA	1-90	-	-	-	-	-
Gypsum Deck Tear-Off									
Min. 1-1/2" InsulBase Polyiso	Full-Coverage FAST	1/2" SecurShield HD Plus	Full-Coverage FAST	1-90	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	12" ribbons of Olybond 500 BA	1/2" SecurShield HD Plus	12" ribbons of Olybond 500 BA	1-90	-	-	-	-	-
(Celcore) Cellular Lightweight Insulating Concrete Over Steel Decking (Min. 22 Gauge)									
FM Approved	Loose laid	1/2" SecurShield HD Plus	12 (2.67 sq. ft)	1-75	-	-	-	-	-
FM Approved	Loose laid	1/2" SecurShield HD Plus	16 (2 sq. ft)	1-90	-	-	-	-	-
-	-	1/2" SecurShield HD Plus	12 (2.67 sq. ft)	1-75	-	-	-	-	-
-	-	1/2" SecurShield HD Plus	16 (2 sq. ft)	1-90	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	4" ribbons of FAST	1/2" SecurShield HD Plus	4" ribbons of FAST	1-120	-	-	-	-	-
-	-	1/2" SecurShield HD Plus	4" ribbons of FAST	1-120	-	-	-	-	-
(Celcore) Cellular Lightweight Insulating Concrete Over Concrete Decking									
Min. 1/2" InsulBase Polyiso	4" ribbons of FAST	1/2" SecurShield HD Plus	4" ribbons of FAST	1-120	-	-	-	-	-
-	-	1/2" SecurShield HD Plus	4" ribbons of FAST	1-120	-	-	-	-	-

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FM Approvals
FleeceBACK™ Adhered Roofing Systems
Membrane Adhered with HydroBond™ Water-Based PVC Bonding Adhesive

SecurShield HD Plus - Recover

Membrane Type: Sure-Seal FleeceBACK - 100, 115 or 145 membrane (black EPDM)
Sure-White FleeceBACK - 100, 115 or 145 membrane (white EPDM)
Sure-Weld FleeceBACK - 100, 115 or 135 membrane (white, tan or gray TPO)
Sure-Flex PVC FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)
Sure-Flex PVC KEE HP FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = FAST 100LV, Flexible FAST, FAST Bag in a Box, FAST Dual Cartridge and FAST Dual Tank
(FAST Dual Tank can only be used on Steel and Concrete Decking)

Base Insulation Layer (Max. thickness 36")	Base Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Top Insulation Layer	Top Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Rating	Sure-Seal	Sure-White	Sure-Weld	Sure-Flex PVC FRS	Sure-Flex PVC KEE HP FRS
					RoofNAV Number				
Steel Deck (Min. 22 Gauge)									
-	-	1/2" SecurShield HD Plus	8 (4 sq. ft)	1-90	-	-	-	-	-
-	-	1/2" SecurShield HD Plus	6" ribbons of FAST	1-90	-	-	-	-	-
-	-	1/2" SecurShield HD Plus	4" ribbons of FAST	1-120	-	-	-	-	-
Concrete Deck									
Min. 1/2" InsulBase Polyiso	6" ribbons of FAST	1/2" SecurShield HD Plus	6" ribbons of FAST	1-120	-	-	-	-	-
-	-	1/2" SecurShield HD Plus	6" ribbons of FAST	1-120	-	-	-	-	-
Tectum Deck									
Min. 1-1/2" InsulBase Polyiso	Full-Coverage FAST	1/2" SecurShield HD Plus	Full-Coverage FAST	1-120	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	12" ribbons of Olybond 500 BA	1/2" SecurShield HD Plus	12" ribbons of Olybond 500 BA	1-90	-	-	-	-	-
Gypsum Deck Tear-Off									
Min. 1-1/2" InsulBase Polyiso	Full-Coverage FAST	1/2" SecurShield HD Plus	Full-Coverage FAST	1-90	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	12" ribbons of Olybond 500 BA	1/2" SecurShield HD Plus	12" ribbons of Olybond 500 BA	1-90	-	-	-	-	-

Note: Recover approvals in this document are based on the following existing roofing system assumption - the existing smooth Asphalt BUR, Modified Bitumen or single-ply system was FM approved at the time of installation. Direct membrane application over existing EPDM single-ply only.

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FM Approvals
FleeceBACK™ Adhered Roofing Systems
Membrane Adhered with HydroBond™ Water-Based PVC Bonding Adhesive

InsulBase Polyiso - New Construction

Membrane Type: Sure-Seal FleeceBACK - 100, 115 or 145 membrane (black EPDM)
Sure-White FleeceBACK - 100, 115 or 145 membrane (white EPDM)
Sure-Weld FleeceBACK - 100, 115 or 135 membrane (white, tan or gray TPO)
Sure-Flex PVC FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)
Sure-Flex PVC KEE HP FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = FAST 100LV, Flexible FAST, FAST Bag in a Box, FAST Dual Cartridge and FAST Dual Tank
(FAST Dual Tank can only be used on Steel and Concrete Decking)

Base Insulation Layer (Max. thickness 36")	Base Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Top Insulation Layer	Top Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Rating	Sure-Seal	Sure-White	Sure-Weld	Sure-Flex PVC FRS	Sure-Flex PVC KEE HP FRS
					RoofNAV Number				
Steel Deck (Min. 22 Gauge)									
Min. 1-1/2" InsulBase Polyiso	16 (2 sq. ft)	-	-	1-90	375851-0-0	-	375850-0-0	375852-0-0	375849-0-0
Min. 2" InsulBase Polyiso	8 (4 sq. ft)	-	-	1-90	375684-0-0	-	375708-0-0	345900-0-0	375669-0-0
Min. 2" InsulBase Polyiso	20 (1.6 sq. ft)	-	-	1-120	-	-	375712-0-0	345905-0-0	-
Min. 1-1/2" InsulBase Polyiso	10 (3.2 sq. ft.)	1-1/2" InsulBase Polyiso	12" ribbons of FAST	1-90	-	-	-	-	-
Min. 2" InsulBase Polyiso	8 (4 sq. ft)	1-1/2" InsulBase Polyiso	12" ribbons of FAST	1-90	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	18 (1.8 sq. ft.)	1-1/2" InsulBase Polyiso	6" ribbons of FAST	1-105	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	24 (1.33 sq. ft.)	1-1/2" InsulBase Polyiso	4" ribbons of FAST	1-120	-	-	-	-	-
Min. 1/2" DensDeck Prime or Securock	16 (2 sq. ft.)	1-1/2" InsulBase Polyiso	12" ribbons of FAST	1-90	-	-	-	-	-
Steel Deck (Min. 22 Gauge) with VapAir Seal 725 TR and Cav-Grip Primer									
Min. 1/2" DensDeck Prime or Securock	16 (2 sq. ft.)	1-1/2" InsulBase Polyiso	12" ribbons of FAST	1-105	-	-	-	-	-
Concrete Deck									
Min. 1" InsulBase Polyiso	12" ribbons of FAST	-	-	1-120	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	12" ribbons of Olybond 500 BA	-	-	1-120	-	-	-	-	-
Min. 1/2" InsulBase Polyiso	Hot Asphalt	-	-	1-120	-	-	-	-	-
Concrete Deck with VapAir Seal 725 TR and Cav-Grip / 702-LV / 702 Primer									
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	-	-	1-120 Cav-Grip	-	-	-	-	-
				1-120 702-LV	-	-	-	-	-
				1-90 702	-	-	-	-	-

FM Approvals
FleeceBACK™ Adhered Roofing Systems
Membrane Adhered with HydroBond™ Water-Based PVC Bonding Adhesive

InsulBase Polyiso - New Construction

Membrane Type: Sure-Seal FleeceBACK - 100, 115 or 145 membrane (black EPDM)
Sure-White FleeceBACK - 100, 115 or 145 membrane (white EPDM)
Sure-Weld FleeceBACK - 100, 115 or 135 membrane (white, tan or gray TPO)
Sure-Flex PVC FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)
Sure-Flex PVC KEE HP FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = FAST 100LV, Flexible FAST, FAST Bag in a Box, FAST Dual Cartridge and FAST Dual Tank
(FAST Dual Tank can only be used on Steel and Concrete Decking)

Base Insulation Layer (Max. thickness 36")	Base Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Top Insulation Layer	Top Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Rating	Sure-Seal	Sure-White	Sure-Weld	Sure-Flex PVC FRS	Sure-Flex PVC KEE HP FRS
					RoofNAV Number				
Concrete Deck with SureMB 90TG and 120TG Base Torch Applied/Cut-Back Asphalt Primer									
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	1-1/2" InsulBase Polyiso	12" ribbons of FAST	1-120	-	-	-	-	-
Tectum Deck									
Min. 1-1/2" InsulBase Polyiso	16 (2 sq. ft)	-	-	1-90	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	Full-Coverage FAST	-	-	1-120	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	12" ribbons of Olybond 500 BA	-	-	1-90	-	-	-	-	-
Gypsum Deck Tear-Off									
Min. 1-1/2" InsulBase Polyiso	16 (2 sq. ft)	-	-	1-90	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	Full-Coverage FAST	-	-	1-90	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	12" ribbons of Olybond 500 BA	-	-	1-90	-	-	-	-	-
(Celcore) Cellular Lightweight Insulating Concrete Over Steel Decking (Min. 22 Gauge)									
Min. 1-1/2" InsulBase Polyiso	16 (2 sq. ft)	-	-	1-90	-	-	-	-	-
Min. 2" InsulBase Polyiso	8 (4 sq. ft)	-	-	1-90	-	-	-	-	-
Min. 2" InsulBase Polyiso	20 (1.6 sq. ft)	-	-	1-120	-	-	-	-	-
Min. 1" InsulBase Polyiso	4" ribbons of FAST	-	-	1-120	-	-	-	-	-
(Celcore) Cellular Lightweight Insulating Concrete Over Concrete Decking									
Min. 1/2" InsulBase Polyiso	4" ribbons of FAST	1-1/2" InsulBase Polyiso	4" ribbons of FAST	1-120	-	-	-	-	-
Min. 1/2" InsulBase Polyiso	4" ribbons of FAST	-	-	1-120	-	-	-	-	-

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FM Approvals
FleeceBACK™ Adhered Roofing Systems
Membrane Adhered with HydroBond™ Water-Based PVC Bonding Adhesive

InsulBase Polyiso - Recover

Membrane Type: Sure-Seal FleeceBACK - 100, 115 or 145 membrane (black EPDM)
Sure-White FleeceBACK - 100, 115 or 145 membrane (white EPDM)
Sure-Weld FleeceBACK - 100, 115 or 135 membrane (white, tan or gray TPO)
Sure-Flex PVC FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)
Sure-Flex PVC KEE HP FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = FAST 100LV, Flexible FAST, FAST Bag in a Box, FAST Dual Cartridge and FAST Dual Tank
(FAST Dual Tank can only be used on Steel and Concrete Decking)

Base Insulation Layer (Max. thickness 36")	Base Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Top Insulation Layer	Top Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Rating	Sure-Seal	Sure-White	Sure-Weld	Sure-Flex PVC FRS	Sure-Flex PVC KEE HP FRS
					RoofNAV Number				
Steel Deck (Min. 22 Gauge)									
1" InsulBase Polyiso	20 (1.6 sq. ft)	-	-	1-90	-	-	391946-0-0	-	-
1" InsulBase Polyiso	6" ribbons of FAST	-	-	1-90	-	-	-	-	-
1" InsulBase Polyiso	12" ribbons of Olybond 500 BA	-	-	1-90	-	-	-	-	-
Concrete Deck									
1" InsulBase Polyiso	12" ribbons of FAST	-	-	1-120	-	-	-	-	-
Tectum Deck									
1" InsulBase Polyiso	20 (1.6 sq. ft)	-	-	1-90	-	-	-	-	-
1" InsulBase Polyiso	Full-Coverage FAST	-	-	1-120	-	-	-	-	-
1" InsulBase Polyiso	12" ribbons of Olybond 500 BA	-	-	1-90	-	-	-	-	-
Gypsum Deck Tear-Off									
1" InsulBase Polyiso	20 (1.6 sq. ft)	-	-	1-90	-	-	-	-	-
1" InsulBase Polyiso	Full-Coverage FAST	-	-	1-90	-	-	-	-	-
1" InsulBase Polyiso	12" ribbons of Olybond 500 BA	-	-	1-90	-	-	-	-	-

Note: Recover approvals in this document are based on the following existing roofing system assumption - the existing smooth Asphalt BUR, Modified Bitumen or single-ply system was FM approved at the time of installation. Direct membrane application over existing EPDM single-ply only.

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FM Approvals
FleeceBACK™ Adhered Roofing Systems
Membrane Adhered with HydroBond™ Water-Based PVC Bonding Adhesive

SecurShield Ratings - New Construction

Membrane Type: Sure-Seal FleeceBACK - 100, 115 or 145 membrane (black EPDM)
 Sure-White FleeceBACK - 100, 115 or 145 membrane (white EPDM)
 Sure-Weld FleeceBACK - 100, 115 or 135 membrane (white, tan or gray TPO)
 Sure-Flex PVC FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = FAST 100LV, Flexible FAST, FAST Bag in a Box, FAST Dual Cartridge and FAST Dual Tank
 (FAST Dual Tank can only be used on Steel and Concrete Decking)

Base Insulation Layer (Max. thickness 36")	Base Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Top Insulation Layer	Top Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Rating	Sure-Seal	Sure-White	Sure-Weld	Sure-Flex PVC FRS	Sure-Flex PVC KEE HP FRS
					RoofNAV Number				
Steel Deck (Min. 22 Gauge)									
Min. 2" SecurShield	16 (2 sq. ft.)	-	-	1-90	-	-	-	-	-
Min. 2" SecurShield	8 (4 sq. ft.)	-	-	1-90	375761-0-0	-	375773-0-0	345915-0-0	375750-0-0
Min. 2" SecurShield	20 (1.6 sq. ft.)	-	-	1-120	375768-0-0	-	375777-0-0	345925-0-0	375754-0-0
Min. 1-1/2" InsulBase Polyiso	10 (3.2 sq. ft.)	Min. 1/2" SecurShield	12" ribbons of FAST	1-90	-	-	-	-	-
Min. 2" InsulBase Polyiso	8 (4 sq. ft.)	Min. 1/2" SecurShield	12" ribbons of FAST	1-90	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	18 (1.8 sq. ft.)	Min. 1/2" SecurShield	6" ribbons of FAST	1-105	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	24 (1.33 sq. ft.)	Min. 1/2" SecurShield	4" ribbons of FAST	1-120	-	-	-	-	-
Min. 1/2" DensDeck Prime or Securock	16 (2 sq. ft.)	Min. 1/2" SecurShield	6" ribbons of FAST	1-90	-	-	-	-	-
Steel Deck (Min. 22 Gauge) with VapAir Seal 725 TR and Cav-Grip Primer									
Min. 1/2" DensDeck Prime or Securock	16 (2 sq. ft.)	Min. 1/2" SecurShield	12" ribbons of FAST	1-105	-	-	-	-	-
Concrete Deck									
Min 1-1/2" SecurShield	12" ribbons of FAST	-	-	1-120	-	-	-	-	-
Min 1-1/2" SecurShield	12" ribbons of Olybond 500 BA	-	-	1-120	-	-	-	-	-
Min 1-1/2" SecurShield	Hot Asphalt	-	-	1-120	-	-	-	-	-
Concrete Deck with VapAir Seal 725 TR and Cav-Grip / 702-LV / 702 Primer									
Min. 1/2" SecurShield	12" ribbons of FAST	-	-	1-120 Cav-Grip	-	-	-	-	-
				1-120 702-LV	-	-	-	-	-
				1-90 702	-	-	-	-	-
Concrete Deck with SureMB 90TG and 120TG Base Torch Applied/Cut-Back Asphalt Primer									
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	Min. 1/2" SecurShield	12" ribbons of FAST	1-120	-	-	-	-	-

FM Approvals
FleeceBACK™ Adhered Roofing Systems
Membrane Adhered with HydroBond™ Water-Based PVC Bonding Adhesive

SecurShield Ratings - New Construction

Membrane Type: Sure-Seal FleeceBACK - 100, 115 or 145 membrane (black EPDM)
Sure-White FleeceBACK - 100, 115 or 145 membrane (white EPDM)
Sure-Weld FleeceBACK - 100, 115 or 135 membrane (white, tan or gray TPO)
Sure-Flex PVC FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)
Sure-Flex PVC KEE HP FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = FAST 100LV, Flexible FAST, FAST Bag in a Box, FAST Dual Cartridge and FAST Dual Tank
(FAST Dual Tank can only be used on Steel and Concrete Decking)

Base Insulation Layer (Max. thickness 36")	Base Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Top Insulation Layer	Top Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Rating	Sure-Seal	Sure-White	Sure-Weld	Sure-Flex PVC FRS	Sure-Flex PVC KEE HP FRS
					RoofNAV Number				
Tectum Deck									
Min. 1-1/2" SecurShield	16 (2 sq. ft)	-	-	1-90	-	-	-	-	-
Min 1-1/2" SecurShield	Full-Coverage FAST	-	-	1-120	-	-	-	-	-
Min. 1-1/2" SecurShield	12" ribbons of Olybond 500 BA	-	-	1-90	-	-	-	-	-
Gypsum Deck Tear-Off									
Min. 1-1/2" SecurShield	16 (2 sq. ft)	-	-	1-90	-	-	-	-	-
Min. 1-1/2" SecurShield	Full-Coverage FAST	-	-	1-90	-	-	-	-	-
Min. 1-1/2" SecurShield	12" ribbons of Olybond 500 BA	-	-	1-90	-	-	-	-	-
(Celcore) Cellular Lightweight Insulating Concrete Over Steel Decking (Min. 22 Gauge)									
Min. 1-1/2" SecurShield	16 (2 sq. ft)	-	-	1-75	-	-	-	-	-
Min. 2" SecurShield	8 (4 sq. ft)	-	-	1-90	-	-	-	-	-
2" SecurShield	20 (1.6 sq. ft.)	-	-	1-120	-	-	-	-	-
2" SecurShield	32 (1 sq. ft.)	-	-	1-120	-	-	-	-	-
Min. 1-1/2" SecurShield	4" ribbons of FAST	-	-	1-120	-	-	-	-	-
(Celcore) Cellular Lightweight Insulating Concrete Over Concrete Decking									
Min. 1/2" InsulBase Polyiso	4" ribbons of FAST	Min. 1/2" SecurShield	4" ribbons of FAST	1-120	-	-	-	-	-
Min. 1-1/2" SecurShield	4" ribbons of FAST	-	-	1-120	-	-	-	-	-

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FM Approvals
 FleeceBACK™ Adhered Roofing Systems
 Membrane Adhered with HydroBond™ Water-Based PVC Bonding Adhesive

SecurShield - Recover

Membrane Type: Sure-Seal FleeceBACK - 100, 115 or 145 membrane (black EPDM)
 Sure-White FleeceBACK - 100, 115 or 145 membrane (white EPDM)
 Sure-Weld FleeceBACK - 100, 115 or 135 membrane (white, tan or gray TPO)
 Sure-Flex PVC FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = FAST 100LV, Flexible FAST, FAST Bag in a Box, FAST Dual Cartridge and FAST Dual Tank
 (FAST Dual Tank can only be used on Steel and Concrete Decking)

Base Insulation Layer (Max. thickness 36")	Base Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Top Insulation Layer	Top Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Rating	Sure-Seal	Sure-White	Sure-Weld	Sure-Flex PVC FRS	Sure-Flex PVC KEE HP FRS
					RoofNAV Number				
Steel Deck (Min. 22 Gauge)									
1" SecurShield	20 (1.6 sq. ft)	-	-	1-90	-	-	-	-	-
Concrete Deck									
1/2" SecurShield	12" ribbons of FAST	-	-	1-90	-	-	-	-	-
Tectum Deck									
1" SecurShield	20 (1.6 sq. ft)	-	-	1-90	-	-	-	-	-
1" SecurShield	Full-Coverage FAST	-	-	1-120	-	-	-	-	-
1" SecurShield	12" ribbons of Olybond 500 BA	-	-	1-90	-	-	-	-	-
Gypsum Deck Tear-Off									
1" SecurShield	20 (1.6 sq. ft)	-	-	1-90	-	-	-	-	-
1" SecurShield	Full-Coverage FAST	-	-	1-90	-	-	-	-	-
1" SecurShield	12" ribbons of Olybond 500 BA	-	-	1-90	-	-	-	-	-

Note: Recover approvals in this document are based on the following existing roofing system assumption - the existing smooth Asphalt BUR, Modified Bitumen or single-ply system was FM approved at the time of installation. Direct membrane application over existing EPDM single-ply only.

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FM Approvals
FleeceBACK™ Adhered Roofing Systems
Membrane Adhered with HydroBond™ Water-Based PVC Bonding Adhesive

SecurShield HD Composite Ratings - New Construction

Membrane Type: Sure-Seal FleeceBACK - 100, 115 or 145 membrane (black EPDM)
 Sure-White FleeceBACK - 100, 115 or 145 membrane (white EPDM)
 Sure-Weld FleeceBACK - 100, 115 or 135 membrane (white, tan or gray TPO)
 Sure-Flex PVC FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = FAST 100LV, Flexible FAST, FAST Bag in a Box, FAST Dual Cartridge and FAST Dual Tank
 (FAST Dual Tank can only be used on Steel and Concrete Decking)

Base Insulation Layer (Max. thickness 36")	Base Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Top Insulation Layer	Top Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Rating	Sure-Seal	Sure-White	Sure-Weld	Sure-Flex PVC FRS	Sure-Flex PVC KEE HP FRS
					RoofNAV Number				
Steel Deck (Min. 22 Gauge)									
Min. 1-1/2" SecurShield HD Composite	16 (2 sq. ft.)	-	-	1-90	-	-	-	-	-
Min. 2" SecurShield HD Composite	8 (4 sq. ft.)	-	-	1-90	-	-	-	-	-
Min. 2" SecurShield HD Composite	20 (1.6 sq. ft.)	-	-	1-120	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	10 (3.2 sq. ft.)	Min. 1/2" SecurShield HD Composite	12" ribbons of FAST	1-90	-	-	-	-	-
Min. 2" InsulBase Polyiso	8 (4 sq. ft.)	Min. 1/2" SecurShield HD Composite	12" ribbons of FAST	1-90	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	18 (1.8 sq. ft.)	Min. 1/2" SecurShield HD Composite	6" ribbons of FAST	1-105	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	24 (1.33 sq. ft.)	Min. 1/2" SecurShield HD Composite	4" ribbons of FAST	1-120	-	-	-	-	-
Min. 1/2" DensDeck Prime or Securock	16 (2 sq. ft.)	Min. 1/2" SecurShield HD Composite	6" ribbons of FAST	1-90	-	-	-	-	-
Steel Deck (Min. 22 Gauge) with VapAir Seal 725 TR and Cav-Grip Primer									
Min. 1/2" DensDeck Prime or Securock	16 (2 sq. ft.)	Min. 1/2" SecurShield HD Composite	12" ribbons of FAST	1-105	-	-	-	-	-
Concrete Deck									
Min 1-1/2" SecurShield HD Composite	12" ribbons of FAST	-	-	1-120	-	-	-	-	-
Min 1-1/2" SecurShield HD Composite	12" ribbons of Olybond 500 BA	-	-	1-120	-	-	-	-	-
Min 1-1/2" SecurShield HD Composite	Hot Asphalt	-	-	1-120	-	-	-	-	-
Concrete Deck with VapAir Seal 725 TR and Cav-Grip / 702-LV / 702 Primer									
Min. 1/2" SecurShield HD Composite	12" ribbons of FAST	-	-	1-120 Cav-Grip	-	-	-	-	-
				1-120 702-LV	-	-	-	-	-
				1-90 702	-	-	-	-	-

FM Approvals
 FleeceBACK™ Adhered Roofing Systems
 Membrane Adhered with HydroBond™ Water-Based PVC Bonding Adhesive

SecurShield HD Composite Ratings - New Construction

Membrane Type: Sure-Seal FleeceBACK - 100, 115 or 145 membrane (black EPDM)
 Sure-White FleeceBACK - 100, 115 or 145 membrane (white EPDM)
 Sure-Weld FleeceBACK - 100, 115 or 135 membrane (white, tan or gray TPO)
 Sure-Flex PVC FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = FAST 100LV, Flexible FAST, FAST Bag in a Box, FAST Dual Cartridge and FAST Dual Tank
 (FAST Dual Tank can only be used on Steel and Concrete Decking)

Base Insulation Layer (Max. thickness 36")	Base Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Top Insulation Layer	Top Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Rating	Sure-Seal	Sure-White	Sure-Weld	Sure-Flex PVC FRS	Sure-Flex PVC KEE HP FRS
					RoofNAV Number				
Concrete Deck with SureMB 90TG and 120TG Base Torch Applied/Cut-Back Asphalt Primer									
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	Min. 1/2" SecurShield HD Composite	12" ribbons of FAST	1-120	-	-	-	-	-
Tectum Deck									
Min. 1-1/2" SecurShield HD Composite	16 (2 sq. ft)	-	-	1-90	-	-	-	-	-
Min 1-1/2" SecurShield HD Composite	Full-Coverage FAST	-	-	1-120	-	-	-	-	-
Min. 1-1/2" SecurShield HD Composite	12" ribbons of Olybond 500 BA	-	-	1-90	-	-	-	-	-
Gypsum Deck Tear-Off									
Min. 1-1/2" SecurShield HD Composite	16 (2 sq. ft)	-	-	1-90	-	-	-	-	-
Min. 1-1/2" SecurShield HD Composite	Full-Coverage FAST	-	-	1-90	-	-	-	-	-
Min. 1-1/2" SecurShield HD Composite	12" ribbons of Olybond 500 BA	-	-	1-90	-	-	-	-	-
(Celcore) Cellular Lightweight Insulating Concrete Over Steel Decking (Min. 22 Gauge)									
Min. 1-1/2" SecurShield HD Composite	16 (2 sq. ft)	-	-	1-75	-	-	-	-	-
Min. 2" SecurShield HD Composite	8 (4 sq. ft)	-	-	1-90	-	-	-	-	-
Min. 2" SecurShield HD Composite	20 (1.6 sq. ft.)	-	-	1-120	-	-	-	-	-
Min. 2" SecurShield HD Composite	32 (1 sq. ft.)	-	-	1-120	-	-	-	-	-
Min. 1-1/2" SecurShield HD Composite	4" ribbons of FAST	-	-	1-120	-	-	-	-	-
(Celcore) Cellular Lightweight Insulating Concrete Over Concrete Decking									
Min. 1-1/2" SecurShield HD Composite	4" ribbons of FAST	-	-	1-120	-	-	-	-	-
Min. 1/2" InsulBase Polyiso	4" ribbons of FAST	Min. 1/2" SecurShield HD Composite	4" ribbons of FAST	1-120	-	-	-	-	-

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FM Approvals
FleeceBACK™ Adhered Roofing Systems
Membrane Adhered with HydroBond™ Water-Based PVC Bonding Adhesive

Securock - New Construction

Membrane Type: Sure-Seal FleeceBACK - 100, 115 or 145 membrane (black EPDM)
Sure-White FleeceBACK - 100, 115 or 145 membrane (white EPDM)
Sure-Weld FleeceBACK - 100, 115 or 135 membrane (white, tan or gray TPO)
Sure-Flex PVC FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)
Sure-Flex PVC KEE HP FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = FAST 100LV, Flexible FAST, FAST Bag in a Box, FAST Dual Cartridge and FAST Dual Tank
(FAST Dual Tank can only be used on Steel and Concrete Decking)

Base Insulation Layer (Max. thickness 36")	Base Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Top Insulation Layer	Top Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Rating	Sure-Seal	Sure-White	Sure-Weld	Sure-Flex PVC FRS	Sure-Flex PVC KEE HP FRS
					RoofNAV Number				
Steel Deck (Min. 22 Gauge)									
FM Approved	Loose laid	Min. 1/4" Securock	12 (2.66 sq. ft)	1-75	375658-0-0	-	375664-0-0	-	375652-0-0
FM Approved	Loose laid	Min. 1/2" Securock	10 (3.2 sq. ft)	1-90	375656-0-0	-	375662-0-0	345911-0-0	375618-0-0
Min. 1-1/2" InsulBase Polyiso	Loose laid	Min. 1/2" Securock	10 (3.2 sq. ft) SecurFAST Plate	1-90	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	Loose laid	Min. 5/8" Securock	8 (4 sq. ft) SureFAST Plate	1-90	-	-	-	-	-
FM Approved	Loose laid	Min. 5/8" Securock	8 (4 sq. ft)	1-90	375657-0-0	-	375663-0-0	375913-0-0	375651-0-0
Min. 1-1/2" InsulBase Polyiso	Loose laid	Min. 1/2" Securock	8 (4 sq. ft) SecurFAST Plate	1-90	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	Loose laid	Min. 1/2" Securock	6 (5.33 sq. ft) SecurFAST Plate	1-75	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	Loose laid	Min. 5/8" Securock	6 (5.33 sq. ft) SecurFAST Plate	1-90	-	-	-	-	-
FM Approved	Loose laid	Min. 1/2" Securock	20 (1.6 sq. ft)	1-120	375659-0-0	-	375665-0-0	345923-0-0	375653-0-0
Min. 1-1/2" InsulBase Polyiso	10 (3.2 sq. ft.)	Min. 1/4" Securock	6" ribbons of FAST	1-90	-	-	-	-	-
Min. 2" InsulBase Polyiso	8 (4 sq. ft)	Min. 1/4" Securock	12" ribbons of FAST	1-90	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	18 (1.8 sq. ft.)	Min. 1/4" Securock	6" ribbons of FAST	1-105	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	24 (1.33 sq. ft.)	Min. 1/4" Securock	4" ribbons of FAST	1-120	-	-	-	-	-
Min. 1/2" DensDeck Prime or 5/8" Securock	16 (2 sq. ft.)	Min. 1/4" Securock over 1-1/2" InsulBase Polyiso	12" ribbons of FAST	1-90	-	-	-	-	-
Steel Deck (Min. 22 Gauge) with VapAir Seal 725 TR and Cav-Grip Primer									
Min. 1/2" Dens Deck Prime or Securock	16 (2 sq. ft.)	Min. 1/4" Securock over Min. 1-1/2" InsulBase Polyiso	12" ribbons of FAST	1-90	-	-	-	-	-
Concrete Deck									
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	Min. 1/4" Securock	12" ribbons of FAST	1-120	-	-	-	-	-
Min. 1/2" InsulBase Polyiso	12" ribbons of Olybond 500 BA	Min. 1/4" Securock	12" ribbons of Olybond 500 BA	1-120	-	-	-	-	-
Min. 1/2" InsulBase Polyiso	Hot Asphalt	Min. 1/4" Securock	Hot Asphalt	1-120	-	-	-	-	-

FM Approvals
FleeceBACK™ Adhered Roofing Systems
Membrane Adhered with HydroBond™ Water-Based PVC Bonding Adhesive

Securock - New Construction

Membrane Type: Sure-Seal FleeceBACK - 100, 115 or 145 membrane (black EPDM)
Sure-White FleeceBACK - 100, 115 or 145 membrane (white EPDM)
Sure-Weld FleeceBACK - 100, 115 or 135 membrane (white, tan or gray TPO)
Sure-Flex PVC FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)
Sure-Flex PVC KEE HP FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = FAST 100LV, Flexible FAST, FAST Bag in a Box, FAST Dual Cartridge and FAST Dual Tank
(FAST Dual Tank can only be used on Steel and Concrete Decking)

Base Insulation Layer (Max. thickness 36")	Base Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Top Insulation Layer	Top Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Rating	Sure-Seal	Sure-White	Sure-Weld	Sure-Flex PVC FRS	Sure-Flex PVC KEE HP FRS
					RoofNAV Number				
Concrete Deck with VapAir Seal 725 TR and Cav-Grip, 702-LV or 702 Primer									
Min. 1-1/2" InsulBase Polyiso	Full-Coverage FAST	Min. 1/4" Securock	12" ribbons of FAST	1-120 Cav-Grip	375660-0-0	-	-	-	-
				1-120 702-LV	-	-	-	-	-
				1-90 702	-	-	-	-	-
Concrete Deck with SureMB 90TG and 120TG Base Torch Applied/Cut-Back Asphalt Primer									
Min. 1-1/2" InsulBase Polyiso	Full-Coverage FAST	Min. 1/4" Securock	12" ribbons of FAST	1-120	-	-	-	-	-
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	Min. 1/4" Securock	12" ribbons of FAST	1-120	-	-	394571-0-0	394566-0-0	393056-0-0
Tectum Deck									
Min. 1-1/2" InsulBase Polyiso	Full-Coverage FAST	Min. 1/4" Securock	Full-Coverage FAST	1-120	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	12" ribbons of Olybond 500 BA	Min. 1/4" Securock	12" ribbons of Olybond 500 BA	1-90	-	-	-	-	-
Gypsum Deck Tear-Off									
Min. 1-1/2" InsulBase Polyiso	Full-Coverage FAST	Min. 1/4" Securock	Full-Coverage FAST	1-90	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	12" ribbons of Olybond 500 BA	Min. 1/4" Securock	12" ribbons of Olybond 500 BA	1-90	-	-	-	-	-
(Celcore) Cellular Lightweight Insulating Concrete Over Steel Decking (Min. 22 Gauge)									
FM Approved	Loose laid	Min. 1/4" Securock	12 (2.67 sq. ft)	1-75	-	-	-	-	-
FM Approved	Loose laid	Min. 1/2" Securock	10 (3.2 sq. ft)	1-90	-	-	-	-	-
FM Approved	Loose laid	Min. 5/8" Securock	8 (4 sq. ft)	1-90	-	-	-	-	-
FM Approved	Loose laid	Min. 1/2" Securock	32 (1 sq. ft)	1-120	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	4" ribbons of FAST	Min. 1/2" Securock	4" ribbons of FAST	1-120	-	-	-	-	-
(Celcore) Cellular Lightweight Insulating Concrete Over Concrete Decking									
Min. 1" InsulBase Polyiso	4" ribbons of FAST	Min. 1/4" Securock	4" ribbons of FAST	1-120	-	-	-	-	-

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FM Approvals
 FleeceBACK™ Adhered Roofing Systems
 Membrane Adhered with HydroBond™ Water-Based PVC Bonding Adhesive
Securock - Recover

Membrane Type: Sure-Seal FleeceBACK - 100, 115 or 145 membrane (black EPDM)
 Sure-White FleeceBACK - 100, 115 or 145 membrane (white EPDM)
 Sure-Weld FleeceBACK - 100, 115 or 135 membrane (white, tan or gray TPO)
 Sure-Flex PVC FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = FAST 100LV, Flexible FAST, FAST Bag in a Box, FAST Dual Cartridge and FAST Dual Tank
 (FAST Dual Tank can only be used on Steel and Concrete Decking)

Base Insulation Layer (Max. thickness 36")	Base Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Top Insulation Layer	Top Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Rating	Sure-Seal	Sure-White	Sure-Weld	Sure-Flex PVC FRS	Sure-Flex PVC KEE HP FRS
					RoofNAV Number				
Concrete Deck									
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	Min. 1/4" Securock	12" ribbons of FAST	1-90	-	-	-	-	-

Note: Recover approvals in this document are based on the following existing roofing system assumption - the existing smooth Asphalt BUR, Modified Bitumen or single-ply system was FM approved at the time of installation. Direct membrane application over existing EPDM single-ply only.

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FM Approvals
FleeceBACK™ Adhered Roofing Systems
Membrane Adhered with HydroBond™ Water-Based PVC Bonding Adhesive

DensDeck Prime - New Construction

Membrane Type: Sure-Seal FleeceBACK - 100, 115 or 145 membrane (black EPDM)
Sure-White FleeceBACK - 100, 115 or 145 membrane (white EPDM)
Sure-Weld FleeceBACK - 100, 115 or 135 membrane (white, tan or gray TPO)
Sure-Flex PVC FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)
Sure-Flex PVC KEE HP FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = FAST 100LV, Flexible FAST, FAST Bag in a Box, FAST Dual Cartridge and FAST Dual Tank
(FAST Dual Tank can only be used on Steel and Concrete Decking)

Base Insulation Layer (Max. thickness 36")	Base Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Top Insulation Layer	Top Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Rating	Sure-Seal	Sure-White	Sure-Weld	Sure-Flex PVC FRS	Sure-Flex PVC KEE HP FRS
					RoofNAV Number				
Steel Deck (Min. 22 Gauge)									
FM Approved	Loose laid	Min. 1/4" DensDeck Prime	12 (2.67 sq. ft)	1-90	-	-	-	345893-0-0	345893-0-0
FM Approved	Loose laid	Min. 1/2" DensDeck Prime	10 (3.2 sq. ft)	1-90	-	-	-	345920-0-0	345920-0-0
FM Approved	Loose laid	Min. 5/8" DensDeck Prime	8 (4 sq. ft)	1-90	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	Loose laid	Min. 1/2" DensDeck Prime	8 (4 sq.ft)	1-90	-	-	-	-	-
Min. 1" InsulBase Polyiso	Loose laid	Min. 1/2" DensDeck Prime	20 (1.6 sq. ft)	1-105	-	-	-	345904-0-0	345904-0-0
Min. 1-1/2" InsulBase Polyiso	Loose laid	Min. 1/2" DensDeck Prime	18 (1.8 sq. ft)	1-135	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	Loose laid	Min. 1/2" DensDeck Prime	20 (1.6 sq. ft)	1-150	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	Loose laid	Min. 1/2" DensDeck Prime	32 (1 sq. ft)	1-165	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	Loose laid	Min. 1/2" DensDeck Prime	32 (1 sq. ft)	1-180 (16)	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	Loose laid	Min. 1/2" DensDeck Prime	32 (1 sq. ft)	1-255 (17)	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	10 (3.2 sq. ft.)	Min. 1/4" DensDeck Prime	12" ribbons of FAST	1-90	-	-	-	384623-0-0	384623-0-0
Min. 2" InsulBase Polyiso	8 (4 sq. ft)	Min. 1/4" DensDeck Prime	12" ribbons of FAST	1-90	-	-	-	391435-0-0	391435-0-0
Min. 1-1/2" InsulBase Polyiso	18 (1.8 sq. ft.)	Min. 1/4" DensDeck Prime	6" ribbons of FAST	1-105	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	24 (1.33 sq. ft.)	Min. 1/4" DensDeck Prime	4" ribbons of FAST	1-165	-	-	-	-	-
Min. 1/2" DensDeck Prime or Securock	16 (2 sq. ft.)	1/4" DensDeck Prime over InsulBase Polyiso	12" ribbons of FAST	1-90	-	-	-	-	-
Steel Deck (Min. 22 Gauge) with VapAir Seal 725 TR and Cav-Grip Primer									
Min. 1/2" DensDeck Prime or Securock	16 (2 sq. ft.)	1/4" DensDeck Prime over InsulBase Polyiso	6" ribbons of FAST	1-120	-	-	-	-	-
Concrete Deck									
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	Min. 1/4" DensDeck Prime	12" ribbons of FAST	1-255	-	-	-	-	-
Min. 1/2" InsulBase Polyiso	12" ribbons of Olybond 500 BA	1/4" DensDeck over InsulBase Polyiso	12" ribbons of Olybond 500 BA	1-255	-	-	-	-	-
Min. 1/2" InsulBase Polyiso	Hot Asphalt	Min. 1/4" DensDeck Prime	Hot Asphalt	1-255	-	-	-	-	-

FM Approvals
FleeceBACK™ Adhered Roofing Systems
Membrane Adhered with HydroBond™ Water-Based PVC Bonding Adhesive

DensDeck Prime - New Construction

Membrane Type: Sure-Seal FleeceBACK - 100, 115 or 145 membrane (black EPDM)
Sure-White FleeceBACK - 100, 115 or 145 membrane (white EPDM)
Sure-Weld FleeceBACK - 100, 115 or 135 membrane (white, tan or gray TPO)
Sure-Flex PVC FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)
Sure-Flex PVC KEE HP FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = FAST 100LV, Flexible FAST, FAST Bag in a Box, FAST Dual Cartridge and FAST Dual Tank
(FAST Dual Tank can only be used on Steel and Concrete Decking)

Base Insulation Layer (Max. thickness 36")	Base Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Top Insulation Layer	Top Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Rating	Sure-Seal	Sure-White	Sure-Weld	Sure-Flex PVC FRS	Sure-Flex PVC KEE HP FRS
					RoofNAV Number				
Concrete Deck with VapAir Seal 725 TR and Cav-Grip / 702-LV / 702 Primer									
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	Min. 1/4" DensDeck Prime	12" ribbons of FAST	1-255 Cav-Grip	-	-	-	364651-0-0	364651-0-0
				1-195 702-LV	-	-	-	364653-0-0	364653-0-0
				1-90 702	-	-	-	-	-
Concrete Deck with SureMB 90TG and 120TG Base Torch Applied/Cut-Back Asphalt Primer									
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	Min. 1/4" DensDeck Prime	12" ribbons of FAST	1-255	-	-	-	394555-0-0	394555-0-0
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	Min. 1/4" DensDeck Prime	12" ribbons of FAST	1-255	-	-	-	-	-
Tectum Deck									
Min. 1/2" InsulBase Polyiso	Full-Coverage FAST	Min. 1/4" DensDeck Prime	Full-Coverage FAST	1-150	-	-	-	-	-
Min. 1/2" InsulBase Polyiso	12" ribbons of Olybond 500 BA	Min. 1/4" DensDeck Prime	12" ribbons of Olybond 500 BA	1-90	-	-	-	-	-
Gypsum Deck Tear-Off									
Min. 1-1/2" InsulBase Polyiso	Full-Coverage FAST	Min. 1/4" DensDeck Prime	Full-Coverage FAST	1-90	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	12" ribbons of Olybond 500 BA	Min. 1/4" DensDeck Prime	12" ribbons of Olybond 500 BA	1-90	-	-	-	-	-
(Celcore) Cellular Lightweight Insulating Concrete Over Steel Decking (Min. 22 Gauge)									
FM Approved	Loose laid	Min. 1/4" DensDeck Prime	12 (2.67 sq. ft)	1-90	-	-	-	-	-
FM Approved	Loose laid	Min. 1/2" DensDeck Prime	10 (3.2 sq. ft)	1-90	-	-	-	-	-
FM Approved	Loose laid	Min. 5/8" DensDeck Prime	8 (4 sq. ft)	1-90	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	4" ribbons of FAST	Min. 1/2" DensDeck Prime	4" ribbons of FAST	1-135	-	-	-	-	-
(Celcore) Cellular Lightweight Insulating Concrete Over Concrete Decking									
Min. 1/2" InsulBase Polyiso	4" ribbons of FAST	Min. 1/4" DensDeck Prime	4" ribbons of FAST	1-135	-	-	-	-	-

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FM Approvals
 FleeceBACK™ Adhered Roofing Systems
 Membrane Adhered with HydroBond™ Water-Based PVC Bonding Adhesive

DensDeck Prime - Recover

Membrane Type: Sure-Seal FleeceBACK - 100, 115 or 145 membrane (black EPDM)
 Sure-White FleeceBACK - 100, 115 or 145 membrane (white EPDM)
 Sure-Weld FleeceBACK - 100, 115 or 135 membrane (white, tan or gray TPO)
 Sure-Flex PVC FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = FAST 100LV, Flexible FAST, FAST Bag in a Box, FAST Dual Cartridge and FAST Dual Tank
 (FAST Dual Tank can only be used on Steel and Concrete Decking)

Base Insulation Layer (Max. thickness 36")	Base Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Top Insulation Layer	Top Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Rating	Sure-Seal	Sure-White	Sure-Weld	Sure-Flex PVC FRS	Sure-Flex PVC KEE HP FRS
					RoofNAV Number				
Concrete Deck									
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	1/4" DensDeck Prime	12" ribbons of FAST	1-90	-	-	-	-	-

Note: Recover approvals in this document are based on the following existing roofing system assumption - the existing smooth Asphalt BUR, Modified Bitumen or single-ply system was FM approved at the time of installation. Direct membrane application over existing EPDM single-ply only.

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FM Approvals
FleeceBACK™ Adhered Roofing Systems
Membrane Adhered with HydroBond™ Water-Based PVC Bonding Adhesive

OSB - New Construction

Membrane Type: Sure-Seal FleeceBACK - 100, 115 or 145 membrane (black EPDM)
Sure-White FleeceBACK - 100, 115 or 145 membrane (white EPDM)
Sure-Weld FleeceBACK - 100, 115 or 135 membrane (white, tan or gray TPO)
Sure-Flex PVC FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)
Sure-Flex PVC KEE HP FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = FAST 100LV, Flexible FAST, FAST Bag in a Box, FAST Dual Cartridge and FAST Dual Tank
(FAST Dual Tank can only be used on Steel and Concrete Decking)

Base Insulation Layer (Max. thickness 36")	Base Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Top Insulation Layer	Top Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Rating	Sure-Seal	Sure-White	Sure-Weld	Sure-Flex PVC FRS	Sure-Flex PVC KEE HP FRS
					RoofNAV Number				
Steel Deck (Min. 22 Gauge)									
FM Approved	Loose laid	Min. 7/16" OSB	17 (1.8 sq. ft)	1-105	-	-	-	-	-
Min. 1" InsulBase Polyiso	Loose laid	Min. 7/16" OSB	17 (1.8 sq. ft)	1-105	375791-0-0	-	375794-0-0	345907-0-0	-
Steel Deck (Min. 22 Gauge) with VapAir Seal 725 TR and Cav-Grip Primer									
Min. 1/2" DensDeck Prime or Securock	16 (2 sq. ft.)	Min. 7/16" OSB	6" ribbons of FAST	1-105	-	-	-	-	-
Concrete Deck									
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	Min. 7/16" OSB	12" ribbons of FAST	1-105	-	-	-	-	-
Min. 1/2" InsulBase Polyiso	12" ribbons of Olybond 500 BA	Min. 7/16" OSB	12" ribbons of Olybond 500 BA	1-105	-	-	-	-	-
Min. 1/2" InsulBase Polyiso	Hot Asphalt	Min. 7/16" OSB	Hot Asphalt	1-105	-	-	-	-	-
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	Min. 7/16" OSB	12" ribbons of FAST	1-105	-	-	-	-	-
Concrete Deck with VapAir Seal 725 TR and Cav-Grip / 702-LV / 702 Primer									
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	Min. 7/16" OSB	12" ribbons of FAST	1-105 Cav-Grip	-	-	-	-	-
				1-105 702-LV	-	-	-	-	-
				1-90 702	-	-	-	-	-
Concrete Deck with SureMB 90TG and 120TG Base Torch Applied/Cut-Back Asphalt Primer									
Min. 1/2" DensDeck Prime or Securock	16 (2 sq. ft.)	7/16" OSB over InsulBase Polyiso	6" ribbons of FAST	1-90	-	-	-	-	-
Tectum Deck									
Min. 1/2" InsulBase Polyiso	Full-Coverage FAST	Min. 7/16" OSB	Full-Coverage FAST	1-105	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	12" ribbons of Olybond 500 BA	Min. 7/16" OSB	12" ribbons of Olybond 500 BA	1-90	-	-	-	-	-

FM Approvals
 FleeceBACK™ Adhered Roofing Systems
 Membrane Adhered with HydroBond™ Water-Based PVC Bonding Adhesive

OSB - New Construction

Membrane Type: Sure-Seal FleeceBACK - 100, 115 or 145 membrane (black EPDM)
 Sure-White FleeceBACK - 100, 115 or 145 membrane (white EPDM)
 Sure-Weld FleeceBACK - 100, 115 or 135 membrane (white, tan or gray TPO)
 Sure-Flex PVC FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = FAST 100LV, Flexible FAST, FAST Bag in a Box, FAST Dual Cartridge and FAST Dual Tank
 (FAST Dual Tank can only be used on Steel and Concrete Decking)

Base Insulation Layer (Max. thickness 36")	Base Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Top Insulation Layer	Top Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Rating	Sure-Seal	Sure-White	Sure-Weld	Sure-Flex PVC FRS	Sure-Flex PVC KEE HP FRS
					RoofNAV Number				
Gypsum Deck Tear-Off									
Min. 1-1/2" InsulBase Polyiso	Full-Coverage FAST	Min. 7/16" OSB	Full-Coverage FAST	1-90	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	12" ribbons of Olybond 500 BA	Min. 7/16" OSB	12" ribbons of Olybond 500 BA	1-90	-	-	-	-	-
(Celcore) Cellular Lightweight Insulating Concrete Over Steel Decking (Min. 22 Gauge)									
FM Approved	Loose laid	Min. 7/16" OSB	17 (1.8 sq. ft)	1-105	-	-	-	-	-
(Celcore) Cellular Lightweight Insulating Concrete Over Concrete Decking									
Min. 1/2" InsulBase Polyiso	4" ribbons of FAST	Min. 7/16" OSB	4" ribbons of FAST	1-105	-	-	-	-	-

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FM Approvals
 FleeceBACK™ Adhered Roofing Systems
 Membrane Adhered with HydroBond™ Water-Based PVC Bonding Adhesive

OSB - Recover

Membrane Type: Sure-Seal FleeceBACK - 100, 115 or 145 membrane (black EPDM)
 Sure-White FleeceBACK - 100, 115 or 145 membrane (white EPDM)
 Sure-Weld FleeceBACK - 100, 115 or 135 membrane (white, tan or gray TPO)
 Sure-Flex PVC FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FRS FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = FAST 100LV, Flexible FAST, FAST Bag in a Box, FAST Dual Cartridge and FAST Dual Tank
 (FAST Dual Tank can only be used on Steel and Concrete Decking)

Base Insulation Layer (Max. thickness 36")	Base Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Top Insulation Layer	Top Layer Fastening (mechanically fastened see notes 13, 14 & 15)	Rating	Sure-Seal	Sure-White	Sure-Weld	Sure-Flex PVC FRS	Sure-Flex PVC KEE HP FRS
					RoofNAV Number				
Steel Deck (Min. 22 Gauge)									
FM Approved	Loose laid	Min. 7/16" OSB	17 (1.8 sq. ft)	1-105	-	-	-	-	-
Concrete Deck									
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	Min. 7/16" OSB	12" ribbons of FAST	1-105	-	-	-	-	-

Note: Recover approvals in this document are based on the following existing roofing system assumption - the existing smooth Asphalt BUR, Modified Bitumen or single-ply system was FM approved at the time of installation. Direct membrane application over existing EPDM single-ply only.

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FleeceBACK Adhered with HydroBond Bonding Adhesive

Reference Notes

1. As an option to adhering the Sure-Weld FleeceBACK Membrane with HydroBond Bonding Adhesive, the membrane can be loose-laid and mechanically fastened to the roof deck in accordance with Carlisle's Sure-Weld FleeceBACK Specification. [\(return to table\)](#)
2. All insulation joints must be staggered a minimum of 6 inches from the deck joints or from the insulation joints directly below. [\(return to table\)](#)
3. Any roof covering system listed for use over a combustible roof deck can be installed over a non-combustible roof deck and achieve the same classification. [\(return to table\)](#)
4. Any UL Classified Carlisle Polyisocyanurate Insulation, any combination, any thickness may be used below the 3" minimum total thickness of SecurShield or SecurShield HD Composite. [\(return to table\)](#)
5. Any UL Classified Carlisle Polyisocyanurate Insulation, any combination, any thickness may be used below the 1.9" thickness of SecurShield or SecurShield HD Composite. [\(return to table\)](#)
6. Any UL Classified Carlisle Polyisocyanurate Insulation, any combination, any thickness may be used below the 1" thickness of SecurShield CD. [\(return to table\)](#)
7. Any UL Classified Insulation, any combination, any thickness, may be used below the 4.5" minimum total thickness. [\(return to table\)](#)
8. All insulation joints must be staggered a minimum of 6 inches from the deck joints or from the insulation joints directly below. [\(return to table\)](#)
9. Any thickness of UL Classified Carlisle Polyisocyanurate Insulation may be used below the 1.9" thickness of SecurShield or SecurShield HD Composite. [\(return to table\)](#)
10. Any UL Classified insulation, any combination, any thickness, may be used below the SecurShield CD. [\(return to table\)](#)
11. 7/16" thick non-veneer, APA rated oriented strand board (OSB) may be substituted for Carlisle HP Recovery Board in all listed assemblies. The fastening pattern for the OSB must conform with Carlisle Detail FB-27-C (when mechanically fastened). [\(return to table\)](#)
12. Acceptable G2 Base Sheets can be one of the following: Celotex Type G2 Vaporbar GB, GAF Gafglas No. 75 Base Sheet, Manville Glasbase, Owens Corning Perma Ply No. 28 or Tamko Glass Base. Carlisle's FR Base Sheet 2S is also acceptable. [\(return to table\)](#)
13. Sure-Seal HP fastener/Sure-Seal Insulation plate.
14. InsulFAST fastener/Sure-Seal Insulation plate.
15. InsulFAST fastener/SecurFAST Insulation Fastening plate.
16. 80 ksi with one fastener per attachment point. [\(return to table\)](#)
17. 80 ksi with two fasteners per attachment point. [\(return to table\)](#)



Click on one of the following to return to chart: SecurShield HD, SecurShield HD Plus, InsulBase Polyiso, SecurShield, SecurShield HD Composite, Securock, DensDeck Prime or OSB.

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Carlisle SynTec, a division of Carlisle Construction Materials Incorporated, P.O. Box 7000, Carlisle, PA 17013

(800)-4SYNTEC (800-479-6832)

Carlisle, Sure-Seal FleeceBack, Sure-White FleeceBack, Sure-Weld FleeceBack, Sure-Flex PVC FRS FleeceBACK and Sure-Flex PVC KEE HP FRS FleeceBACK,

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