

FleeceBACK® Roofing Systems

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

Code Approval Guide

August, 2020

Table of Contents

FleeceBACK Adhered Roofing Systems:

UL Approvals:

Non-Combustible - ANSI UL - Class A.....	2
Combustible - ANSI UL - Class A.....	3
Combustible - ANSI UL - Class B.....	5

FM Approvals:

SecurShield HD New Construction.....	6
SecurShield HD Recover.....	7
SecurShield HD Plus New Construction.....	8
SecurShield HD Plus Recover.....	10
InsulBase Polyiso New Construction.....	11
InsulBase Polyiso Recover.....	13
SecurShield New Construction.....	14
SecurShield Recover.....	16
SecurShield HD Composite New Construction.....	17
Securock New Construction.....	19
Securock Recover.....	21
DensDeck Prime New Construction.....	22
DensDeck Prime Recover.....	24
StormBase New Construction.....	25
StormBase Recover.....	27

Reference Notes.....	28
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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 (TPO)
 Sure-Flex PVC FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP 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	Sure-Flex PVC KEE HP
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)	Min. 1/2" EcoStorm VSH	1"	1"	2"	2-1/2"	2-1/2"
9		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"

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 (TPO)
 Sure-Flex PVC FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP 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	Sure-Flex PVC KEE HP
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"	1-1/2"
2	Minimum 1/4" DensDeck or DensDeck Prime Roof Boards (2)	Any UL Classified Carlisle Polyisocyanurate Insulation, any combination, any thickness.	N/A	1/2"	3/4" Class C	1/2"	2-1/2"	1-1/2"
3	N/A	Minimum 3" layer or two layers of 1.5" SecurShield or SecurShield HD Composite. (2)(4)	N/A	1/2"	3/4" Class C	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"	3/4" Class C	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"	3/4" Class C	1/2"	1/2"	1/2"
6	N/A	Minimum 1-1/2" layer of Insulfoam HD Composite over a minimum 3" layer of Insulfoam EPS. (2)(7)	N/A	1/2"	1/2"	1/2"	1/2"	1/2"
7	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"
8	N/A	Any UL Classified Insulation, any thickness (OPTIONAL)	Minimum 3/8" SECUROCK® Gypsum Fiber Roof Board (2)	1"	1"	2"	2"	2"
9	N/A	Any UL Classified Insulation, any thickness (OPTIONAL)	Minimum 1/2" SECUROCK® Gypsum Fiber Roof Board (2)	1"	1"	2"	3"	4"
10	N/A	Any UL Classified Insulation, any thickness (OPTIONAL)	Minimum 1/2" SECUROCK® Gypsum Fiber Roof Board (2)	1"	1"	2"	3"	3"
11	N/A	Any UL Classified Insulation, any thickness (OPTIONAL)	Minimum 1/4" DensDeck Prime Roof Board (2)	1"	1"	2"	3"	Unlimited
12	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"
13	N/A	Any UL Classified Polyiso Insulation, any thickness (OPTIONAL)	SecurShield HD (all insulation and roof deck joints must be staggered 12")	1/2"	3/4" Class C	1/2"	1"	1"

**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 (TPO)
 Sure-Flex PVC FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP 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	Sure-Flex PVC KEE HP
Combustible (7) - ANSI/UL 790 Spread of Flame Test-Class A								
14	N/A	Any UL Classified Polyiso Insulation, any thickness (OPTIONAL)	Minimum 1/2" SecurShield, SecurShield NH or SecurShield HD Composite. (1)(3) (all insulation and roof deck joints must be staggered 12")	1/2"	3/4" Class C	1/2"	1/2"	1/2"
15	N/A	Minimum 1" layer of SecurShield, SecerShield NH or SecurShield HD Composite over a minimum 3-1/2" layer of any UL Classified EPS Insulation. (1)(3) (all insulation and roof deck joints must be staggered 12")	N/A	1/2"	3/4" Class C	1/2"	1/2"	1/2"
16	N/A	Any UL Classified Carlisle Polyisocyanurate Insulation, any combination, any thickness.	Minimum 1/2" EcoStorm VSH	1"	1"	1/2" Class C	1"	1"

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 (TPO)
 Sure-Flex PVC FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP 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	Sure-Flex PVC KEE HP
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	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"
4	G2 Base Sheet (12)	1-1/2" Polyisocyanurate	N/A	1/2"	1/2"	1/2"	1/2"	1/2"

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 (TPO)
 Sure-Flex PVC FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = Flexible FAST and Flexible FAST Dual Tank

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	Sure-Flex PVC KEE HP
					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 III or 702 Primer									
Min. 1/2" DensDeck Prime or Securock	8 (4 sq. ft)	1/2" SecurShield HD over InsulBase Polyiso	6" ribbons of FAST	1-90	-	-	-	-	-
Steel Deck (Min. 22 Gauge) with SureMB 90TG and 120TG Base Torch Applied									
Min. 1/2" DensDeck Prime or Securock	8 (4 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	1-315	429662-0-0	-	429666-0-0	-	429672-0-0
3/4" Optim-R	6" ribbons of FAST	1/2" SecurShield HD	6" ribbons of FAST	1-120	438094-0-0	-	-	438112-0-0	-
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 III / 702-LV / 702 Primer									
3/4" Optim-R	6" ribbons of FAST	1/2" SecurShield HD	6" ribbons of FAST	1-120 702	437580-0-0	-	-	437596-0-0	-
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	1/2" SecurShield HD	12" ribbons of FAST	1-120	-	-	-	-	-
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	393061-0-0	-	393062-0-0	392970-0-0	393060-0-0
Gypsum Deck Tear-Off									
Min. 1-1/2" InsulBase Polyiso	12" ribbons of FAST	1/2" SecurShield HD	12" ribbons of FAST	1-90	-	-	-	-	-
Gypsum Deck Tear-Off with VapAir Seal 725TR and Cav-Grip III / 702-LV / 702 Primer									
Min. 1-1/2" InsulBase Polyiso	12" ribbons of FAST	1/2" SecurShield HD	12" ribbons of FAST	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	-	-	-	-	-

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 (TPO)
 Sure-Flex PVC FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = Flexible FAST and Flexilble FAST Dual Tank

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	Sure-Flex PVC KEE HP	
					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	12" ribbons of FAST	1-90	-	-	-	-	-	
-	-	1/2" SecurShield HD	6" ribbons of FAST	1-120	-	-	-	-	-	
Gypsum Deck										
-	-	1/2" SecurShield HD	6" 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.

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 (TPO)
Sure-Flex PVC FleeceBACK - 105, 115 or 135 membrane (white PVC)
Sure-Flex PVC KEE HP FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = Flexible FAST and Flexible FAST Dual Tank

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	Sure-Flex PVC KEE HP
					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 III or 702 Primer									
Min. 1/2" DensDeck Prime or Securock	8 (4 sq. ft.)	SecurShield HD Plus over InsulBase Polyiso	6" ribbons of FAST	1-90	-	-	-	-	-
Steel Deck (Min. 22 Gauge) with SureMB 90TG and 120TG Base Torch Applied									
Min. 1/2" DensDeck Prime or Securock	8 (4 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	-	-	-	429666-0-0	429671-0-0
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 III / 702-LV / 702 Primer									
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	1/2" SecurShield HD Plus	12" ribbons of FAST	1-120	-	-	-	-	-
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
Gypsum Deck Tear-Off									
Min. 1-1/2" InsulBase Polyiso	12" ribbons of FAST	1/2" SecurShield HD Plus	12" ribbons of FAST	1-90	-	-	-	-	-
Gypsum Deck Tear-Off with VapAir Seal 725TR and Cav-Grip III / 702-LV / 702 Primer									

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 (TPO)
 Sure-Flex PVC FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = Flexible FAST and Flexible FAST Dual Tank

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	Sure-Flex PVC KEE HP
					RoofNAV Number				
Min. 1-1/2" InsulBase Polyiso	12" ribbons of FAST	1/2" SecurShield HD Plus	12" ribbons of FAST	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	-	-	-	-	-

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 (TPO)
 Sure-Flex PVC FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = Flexible FAST and Flexible FAST Dual Tank

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	Sure-Flex PVC KEE HP
					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	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	-	-	-	-	-
Gypsum Deck									
Min. 1-1/2" InsulBase Polyiso	Full-Coverage FAST	1/2" SecurShield HD Plus	Full-Coverage 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.

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 (TPO)
 Sure-Flex PVC FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = Flexible FAST and Flexilbe FAST Dual Tank

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	Sure-Flex PVC KEE HP
					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. 2" InsulBase Polyiso	16 (2 sq. ft.)	1" InsulBase Polyiso	12" ribbons of FAST	1-90	-	-	459641-0-0	-	-
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 III or 702 Primer									
Min. 1/2" DensDeck Prime or Securock	8 (4 sq. ft.)	1-1/2" InsulBase Polyiso	12" ribbons of FAST	1-90	-	-	-	-	-
Steel Deck (Min. 22 Gauge) with SureMB 90TG or 120TG Base Torch Applied									
Min. 1/2" DensDeck Prime or Securock	8 (4 sq. ft.)	1-1/2" InsulBase Polyiso	12" ribbons of FAST	1-90	-	-	-	-	-
Concrete Deck									
Min. 1" InsulBase Polyiso	12" ribbons of FAST	-	-	1-120	-	-	-	-	-
Min. 1/2" InsulBase Polyiso	Hot Asphalt	-	-	1-120	-	-	-	-	-
Concrete Deck with VapAir Seal 725 TR and Cav-Grip III / 702-LV / 702 Primer									
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	-	-	1-120	-	-	-	-	-
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	-	-	-	-	-

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 (TPO)
 Sure-Flex PVC FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = Flexible FAST and Flexilble FAST Dual Tank

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	Sure-Flex PVC KEE HP
					RoofNAV Number				
Gypsum Deck Tear-Off									
Min. 1-1/2" InsulBase Polyiso	16 (2 sq. ft)	-	-	1-90	-	-	-	-	-
Min. 1-1/2" InsulBase Polyiso	12" ribbons of FAST	-	-	1-90	-	-	-	-	-
Gypsum Deck Tear-Off with VapAir Seal 725TR and Cav-Grip III / 702-LV / 702 Primer									
Min. 1-1/2" InsulBase Polyiso	12" ribbons of FAST	-	-	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	-	-	-	-	-

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 (TPO)
 Sure-Flex PVC FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = Flexible FAST and Flexilble FAST Dual Tank

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	Sure-Flex PVC KEE HP
					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	-	-	-	-	-
Concrete Deck									
1" InsulBase Polyiso	12" ribbons of FAST	-	-	1-120	-	-	-	-	-
Gypsum Deck									
1" InsulBase Polyiso	20 (1.6 sq. ft)	-	-	1-90	-	-	-	-	-
1" InsulBase Polyiso	Full-Coverage 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.

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 (TPO)
 Sure-Flex PVC FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = Flexible FAST and Flexible FAST Dual Tank

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	Sure-Flex PVC KEE HP
					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 III or 702 Primer									
Min. 1/2" DensDeck Prime or Securock	8 (4 sq. ft.)	Min. 1/2" SecurShield	12" ribbons of FAST	1-90	-	-	-	-	-
Steel Deck (Min. 22 Gauge) with SureMB 90TG or 120TG Base Torch Applied									
Min. 1/2" DensDeck Prime or Securock	8 (4 sq. ft.)	Min. 1/2" SecurShield	12" ribbons of FAST	1-90	-	-	-	-	-
Concrete Deck									
Min 1-1/2" SecurShield	12" ribbons of FAST	-	-	1-120	-	-	-	-	-
Min 1-1/2" SecurShield	Hot Asphalt	-	-	1-120	-	-	-	-	-
Concrete Deck with VapAir Seal 725 TR and Cav-Grip III / 702-LV / 702 Primer									
Min. 1/2" SecurShield	12" ribbons of FAST	-	-	1-120	375660-0-0	-	-	-	-
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	-	-	-	-	-
Gypsum Deck Tear-Off									
Min. 1-1/2" SecurShield	16 (2 sq. ft.)	-	-	1-90	-	-	-	-	-
Min. 1-1/2" SecurShield	12" ribbons of FAST	-	-	1-90	-	-	-	-	-

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 (TPO)
 Sure-Flex PVC FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = Flexible FAST and Flexilbe FAST Dual Tank

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	Sure-Flex PVC KEE HP
					RoofNAV Number				
Gypsum Deck Tear-Off with VapAir Seal 725TR and Cav-Grip III, 702-LV or 702 Primer									
Min. 1-1/2" SecurShield	12" ribbons of FAST	-	-	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	-	-	-	-	-

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 (TPO)
 Sure-Flex PVC FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = Flexible FAST and Flexible FAST Dual Tank

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	Sure-Flex PVC KEE HP
					RoofNAV Number				
Steel Deck (Min. 22 Gauge)									
1" SecurShield	20 (1.6 sq. ft)	-	-	1-90	400221-0-0	400217-0-0	-	-	-
Concrete Deck									
1/2" SecurShield	12" ribbons of FAST	-	-	1-90	-	-	-	-	-
Gypsum Deck									
1" SecurShield	20 (1.6 sq. ft)	-	-	1-90	-	-	-	-	-
1" SecurShield	Full-Coverage 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.

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 (TPO)
 Sure-Flex PVC FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = Flexible FAST and Flexilble FAST Dual Tank

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	Sure-Flex PVC KEE HP
					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 III or 702 Primer									
Min. 1/2" DensDeck Prime or Securock	8 (4 sq. ft.)	Min. 1/2" SecurShield HD Composite	12" ribbons of FAST	1-90	-	-	-	-	-
Steel Deck (Min. 22 Gauge) with SureMB 90TG or 120TG Base Torch Applied									
Min. 1/2" DensDeck Prime or Securock	8 (4 sq. ft.)	Min. 1/2" SecurShield HD Composite	12" ribbons of FAST	1-90	-	-	-	-	-
Concrete Deck									
Min 1-1/2" SecurShield HD Composite	12" ribbons of FAST	-	-	1-120	-	-	-	-	-
Min 1-1/2" SecurShield HD Composite	Hot Asphalt	-	-	1-120	-	-	-	-	-
Concrete Deck with VapAir Seal 725 TR and Cav-Grip III / 702-LV / 702 Primer									
Min. 1/2" SecurShield HD Composite	12" ribbons of FAST	-	-	1-120	-	-	-	-	-
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	-	1-120	-	-	-	-	-
Gypsum Deck Tear-Off									

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 (TPO)
 Sure-Flex PVC FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = Flexible FAST and Flexilble FAST Dual Tank

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	Sure-Flex PVC KEE HP
					RoofNAV Number				
Min. 1-1/2" SecurShield HD Composite	16 (2 sq. ft)	-	-	1-90	-	-	-	-	-
Min. 1-1/2" SecurShield HD Composite	12" ribbons of FAST	-	-	1-90	-	-	-	-	-
Gypsum Deck Tear-Off with VapAir Seal 725TR and Cav-Grip III, 702-LV or 702 Primer									
Min. 1-1/2" SecurShield HD Composite	12" ribbons of FAST	-	-	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	-	-	-	-	-

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 (TPO)
 Sure-Flex PVC FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = Flexible FAST and Flexibile FAST Dual Tank

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	Sure-Flex PVC KEE HP
					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	32 (1 sq. ft)	1-270	396179-0-0	-	-	-	-
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	443319-0-0	-	443320-0-0	-	443327-0-0
Min. 1-1/2" InsulBase Polyiso	Loose laid	Min. 1/2" Securock	6 (5.33 sq. ft) SecurFAST Plate	1-90	443343-0-0	-	443344-0-0	-	443345-0-0
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 III or 702 Primer									
Min. 1/2" Dens Deck Prime or Securock	8 (4 sq. ft.)	Min. 1/4" Securock over Min. 1-1/2" InsulBase Polyiso	12" ribbons of FAST	1-90	-	-	-	-	-
Steel Deck (Min. 22 Gauge) with SureMB 90TG or 120TG Base Torch Applied									
Min. 1/2" Dens Deck Prime or Securock	8 (4 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	Hot Asphalt	Min. 1/4" Securock	Hot Asphalt	1-120	-	-	-	-	-
Min. 1/2" InsulBase Polyiso	Loose laid	Min. 1/4" Securock	10 (3.2 sq. ft)	1-90	-	-	-	395790-0-0	-

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 (TPO)
 Sure-Flex PVC FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = Flexible FAST and Flexibile FAST Dual Tank

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	Sure-Flex PVC KEE HP
					RoofNAV Number				
Concrete Deck with VapAir Seal 725 TR and Cav-Grip III, 702-LV or 702 Primer									
Min. 1-1/2" InsulBase Polyiso	12" ribbons of FAST	Min. 1/4" Securock	12" ribbons of FAST	1-120	375660-0-0	-	-	-	-
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
Gypsum Deck Tear-Off									
Min. 1-1/2" InsulBase Polyiso	12" ribbons of FAST	Min. 1/4" Securock	12" ribbons of FAST	1-90	-	-	-	-	-
Gypsum Deck Tear-Off with VapAir Seal 725TR and Cav-Grip III, 702-LV or 702 Primer									
Min. 1-1/2" InsulBase Polyiso	12" ribbons of FAST	Min. 1/4" Securock	12" ribbons of FAST	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	-	-	-	-	-

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 (TPO)
 Sure-Flex PVC FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = Flexible FAST and Flexilble FAST Dual Tank

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	Sure-Flex PVC KEE HP
					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.

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 (TPO)
Sure-Flex PVC FleeceBACK - 105, 115 or 135 membrane (white PVC)
Sure-Flex PVC KEE HP FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = Flexible FAST and Flexilble FAST Dual Tank

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	Sure-Flex PVC KEE HP
					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	-	-	420540-0-0	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	-	-	420541-0-0	428869-0-0	-
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 III or 702 Primer									
Min. 1/2" DensDeck Prime or Securock	8 (4 sq. ft.)	1/4" DensDeck Prime over InsulBase Polyiso	12" ribbons of FAST	1-90	-	-	-	-	-
Steel Deck (Min. 22 Gauge) with SureMB 90TG or 120TG Base Torch Applied									
Min. 1/2" DensDeck Prime or Securock	8 (4 sq. ft.)	1/4" DensDeck Prime over InsulBase Polyiso	12" ribbons of FAST	1-90	-	-	-	-	-
Concrete Deck									
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	Min. 1/4" DensDeck Prime	12" ribbons of FAST	1-315	-	-	429664-0-0	429668-0-0	429668-0-0
Min. 1/2" InsulBase Polyiso	Hot Asphalt	Min. 1/4" DensDeck Prime	Hot Asphalt	1-255	-	-	-	-	-
Concrete Deck with VapAir Seal 725 TR and Cav-Grip III / 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 III	-	-	-	364651-0-0	364651-0-0
				1-195 702-LV	-	-	-	364653-0-0	364653-0-0

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 (TPO)
 Sure-Flex PVC FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = Flexible FAST and Flexible FAST Dual Tank

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	Sure-Flex PVC KEE HP
					RoofNAV Number				
				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	-	-	-	-	-
Gypsum Deck Tear-Off									
Min. 1-1/2" InsulBase Polyiso	12" ribbons of FAST	Min. 1/4" DensDeck Prime	12" ribbons of FAST	1-90	-	-	-	-	-
Gypsum Deck Tear-Off with VapAir Seal 725TR and Cav-Grip III, 702-LV or 702 Primer									
Min. 1-1/2" InsulBase Polyiso	12" ribbons of FAST	Min. 1/4" DensDeck Prime	12" ribbons of FAST	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	-	-	-	-	-

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 (TPO)
 Sure-Flex PVC FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = Flexible FAST and Flexilbe FAST Dual Tank

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	Sure-Flex PVC KEE HP
					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.

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

StormBase - 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 (TPO)
 Sure-Flex PVC FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = Flexible FAST and Flexible FAST Dual Tank

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	Sure-Flex PVC KEE HP
					RoofNAV Number				
Steel Deck (Min. 22 Gauge)									
FM Approved	Loose laid	Min. 2" StormBase	17 (1.8 sq. ft)	1-105	-	-	-	-	-
Min. 1" InsulBase Polyiso	Loose laid	Min. 2" StormBase	17 (1.8 sq. ft)	1-105	-	-	-	-	-
Steel Deck (Min. 22 Gauge) with VapAir Seal 725 TR and Cav-Grip III or 702 Primer									
Min. 1/2" DensDeck Prime or Securock	8 (4 sq. ft.)	Min. 2" StormBase	12" ribbons of FAST	1-90	-	-	-	-	-
Steel Deck (Min. 22 Gauge) with SureMB 90TG or 120TG Base Torch Applied									
Min. 1/2" DensDeck Prime or Securock	8 (4 sq. ft.)	Min. 2" StormBase	12" ribbons of FAST	1-90	-	-	-	-	-
Concrete Deck									
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	Min. 2" StormBase	12" ribbons of FAST	1-105	-	-	-	-	-
Min. 1/2" InsulBase Polyiso	Hot Asphalt	Min. 2" StormBase	Hot Asphalt	1-105	-	-	-	-	-
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	Min. 2" StormBase	12" ribbons of FAST	1-105	-	-	-	-	-
Concrete Deck with VapAir Seal 725 TR and Cav-Grip III / 702-LV / 702 Primer									
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	Min. 2" StormBase	12" ribbons of FAST	1-105	-	-	-	-	-
Concrete Deck with SureMB 90TG and 120TG Base Torch Applied/Cut-Back Asphalt Primer									
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	Min. 2" StormBase	12" ribbons of FAST	1-105	-	-	-	-	-
Gypsum Deck Tear-Off									
Min. 1-1/2" InsulBase Polyiso	12" ribbons of FAST	Min. 2" StormBase	12" ribbons of FAST	1-90	-	-	-	-	-
Gypsum Deck Tear-Off with VapAir Seal 725TR and Cav-Grip III, 702-LV or 702 Primer									
Min. 1-1/2" InsulBase Polyiso	12" ribbons of FAST	Min. 2" StormBase	12" ribbons of FAST	1-90	-	-	-	-	-
(Celcore) Cellular Lightweight Insulating Concrete Over Steel Decking (Min. 22 Gauge)									
FM Approved	Loose laid	Min. 2" StormBase	17 (1.8 sq. ft)	1-105	-	-	-	-	-
(Celcore) Cellular Lightweight Insulating Concrete Over Concrete Decking									

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

StormBase - 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 (TPO)
 Sure-Flex PVC FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = Flexible FAST and Flexible FAST Dual Tank

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	Sure-Flex PVC KEE HP
					RoofNAV Number				
Min. 1/2" InsulBase Polyiso	4" ribbons of FAST	Min. 2" StormBase	4" ribbons of FAST	1-105	-	-	-	-	-

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

StormBase - 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 (TPO)
 Sure-Flex PVC FleeceBACK - 105, 115 or 135 membrane (white PVC)
 Sure-Flex PVC KEE HP FleeceBACK - 105, 115 or 135 membrane (white PVC)

Membrane Adhesive: HydroBond™ Water-Based PVC Bonding Adhesive

Base and Top Layer Adhesive: FAST = Flexible FAST and Flexible FAST Dual Tank

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	Sure-Flex PVC KEE HP
					RoofNAV Number				
Concrete Deck									
Min. 1/2" InsulBase Polyiso	12" ribbons of FAST	Min. 2" StormBase	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.

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.
2. All insulation joints must be staggered a minimum of 6 inches from the deck joints or from the insulation joints directly below.
3. Any roof covering system listed for use over a combustibile roof deck can be installed over a non-combustible roof deck and achieve the same classification.
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.
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.
6. Any UL Classified Carlisle Polyisocyanurate Insulation, any combination, any thickness may be used below the 1" thickness of SecurShield CD.
7. Any UL Classified Insulation, any combination, any thickness, may be used below the 4.5" minimum total thickness.
8. All insulation joints must be staggered a minimum of 6 inches from the deck joints or from the insulation joints directly below.
9. Any thickness of UL Classified Carlisle Polyisocyanurate Insulation may be used below the 1.9" thickness of SecurShield or SecurShield HD Composite.
10. Any UL Classified insulation, any combination, any thickness, may be used below the SecurShield CD.
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).
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.
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.
17. 80 ksi with two fasteners per attachment point.

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 FleeceBACK and Sure-Flex PVC KEE HP FleeceBACK,

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