

MIAMI-DADE COUNTY PRODUCT CONTROL SECTION

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DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

CertainTeed Corporation 20 Moores Road Malvern, PA 19355

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: CertainTeed Modified Bitumen Roof System over Concrete Decks.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA No. 17-1003.05 and consists of pages 1 through 89. The submitted documentation was reviewed by Alex Tigera.

Sterrage

MIAMI-DADE COUNTY

Expiration Date: 05/19/23 Approval Date: 01/17/19

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NOA No.: 18-1127.19

ROOFING SYSTEM APPROVAL

Category: Roofing

Sub-Category: Modified Bitumen

Material:APP/SBSDeck Type:ConcreteMaximum Design Pressure:-635 psf

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT: TABLE 1

| | | Test | Product |
|----------------------------------|--|---------------------------------------|---|
| Product | Dimensions | Specification | Description |
| All Weather/Empire Base Sheet | 39 ³ / ₈ " x 65'10"; Roll weight: 70 lbs. (2 squares) | ASTM D 4601, Type II | Asphalt coated, fiberglass reinforced base sheet. |
| Flexiglas Base Sheet | 39 ³ / ₈ " x 98'9"; Roll weight: 90 lbs. (3 squares) | ASTM D 4601, Type II | Modified Bitumen coated fiberglass base sheet. |
| Flintlastic Base 20 | 39 ³ / ₈ " x 49' 6''; Roll weight: 90 lbs. (1.5 squares) | ASTM D 6163, Grade S, Type I | Modified Bitumen coated fiberglass base sheet. |
| Flintglas Ply 4 | 39 ³ / ₈ " x 164'7"; Roll weight: 38 lbs. (5 squares) | ASTM D 2178, Type IV UL Type G1 | Fiberglass, asphalt impregnated ply sheet. |
| Flintglas Premium Ply 6 | 39 ³ / ₈ " x 164'7"; Roll weight: 40 lbs. (5 squares) | ASTM D 2178, Type VI UL Type G1 | Fiberglass, asphalt impregnated ply sheet. |
| Flintlastic STA | 39 ³ / ₈ " x 32' 10"; Roll weight: 87 lbs. (1 square) | ASTM D 6222, Grade S, Type I | Smooth surfaced APP Modified Bitumen membrane with non-woven polyester mat reinforcement for torch application. |
| Flintlastic GTA | 39 ³ / ₈ " x 32' 10"; Roll weight: 105 lbs. (1 square) | ASTM D 6222, Grade G, Type I | Granule surfaced APP Modified Bitumen membrane with non-woven polyester mat reinforcement for torch application. |
| Flintlastic GTA-FR | 39 ³ / ₈ " x 32' 10"; Roll weight: 105 lbs. (1 square) | ASTM D 6222, Grade G, Type I | Granule surfaced APP Modified Bitumen membrane with non-woven polyester mat reinforcement for torch application. |
| Flintlastic GMS | 39 ³ / ₈ " x 32' 10"; Roll weight: 94 lbs. (1 square) | ASTM D 6164, Grade G, Type I | Granule surfaced SBS Modified Bitumen membrane with non-woven polyester mat reinforcement for mop application. |



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TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT: TABLE 1

| <u>Product</u> | <u>Dimensions</u> | Test Specification | Product <u>Description</u> |
|--|---|----------------------------------|--|
| Flintlastic FR-P | 39 ³ / ₈ " x 32' 10"; Roll weight: 101 lbs. (1 square) | ASTM D 6164, Grade G, Type I | Fire resistant, granule surfaced SBS Modified Bitumen Membrane with non-woven polyester mat reinforcement for mop application. |
| Flintlastic Premium FR-P | 39 ³ / ₈ " x 32' 10"; Roll weight: 101 lbs. (1 square) | ASTM D 6164, Grade G, Type II | Fire resistant, granule surfaced SBS Modified Bitumen Membrane with non-woven polyester mat reinforcement for mop application. |
| Flintlastic FR Dual Cap | 39 ³ / ₈ " x 32' 10"; Roll weight: 103 lbs. (1 square) | ASTM D 6162, Grade G, Type II | Granule surfaced SBS modified bitumen membrane with a nonwoven polyester/fiberglass composite mat reinforcement for use in cold or mop applications. |
| Flintlastic Cap 30 | 39 ³ / ₈ " x 32' 10"; Roll weight: 86 lbs. (1 square) | ASTM D 6163, Grade G, Type I | Granule surfaced SBS Modified Bitumen membrane with fiberglass mat reinforcement for mop applications. |
| Flintlastic FR Cap 30 | 39 ³ / ₈ " x 32' 10"; Roll weight: 86 lbs. (1 square) | ASTM D 6163, Grade G, Type I | Fire resistant, granule surfaced SBS Modified Bitumen membrane with fiberglass mat reinforcement for mop applications. |
| Flintlastic FR Cap 30 T | 39 ³ / ₈ " x 32' 10"; Roll weight: 100 lbs. (1 square) | ASTM D 6163, Grade G, Type I | Granule surfaced SBS Modified Bitumen membrane with fiberglass mat reinforcement for torch application. |
| Flintlastic Base 20 T | 39 ³ / ₈ " x 33'; Roll Weight: 81 lbs. (1 square) | ASTM D 6163, Grade S, Type I | Modified Bitumen, coated fiberglass base sheet for torch application. |
| Flintlastic Ultra Poly SMS Base Sheet | 39 ³ / ₈ " x 32' 10"; Roll weight: 90 lbs. (1 square) | ASTM D 6164, Grade S, Type I | Smooth surfaced SBS Modified Bitumen Membrane with non-woven polyester mat reinforcement for mop or torched applications. |
| Glasbase Base Sheet | 36" x 98'9"; Roll weight: 75 lbs. (3 squares) | ASTM D 4601, Type II | Asphalt coated, fiberglass base sheet. |
| Flintlastic Poly SMS Base Sheet | 39 ³ / ₈ " x 64' 3"; Roll weight: 90 lbs. (2 squares) | ASTM D 4601, Grade S, Type II | Modified Bitumen coated polyester base sheet. |



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TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT: TABLE 1

| <u>Product</u> | Dimensions | Test <u>Specification</u> | Product <u>Description</u> |
|-----------------------------|--|---|--|
| Yosemite Venting Base Sheet | 39 ³ / ₈ " x 32'10"; Roll weight: 85 lbs. (1 square) | ASTM D 3909 ASTM D 4897, Type II UL G3 | Mineral Surfaced fiberglass reinforced buffer sheet. |
| Flintlastic APP Base T | 39 ³ / ₈ " x 65' 4"; Roll weight: 100 lbs. (2 squares) | ASTM D 6509 | Modified Bitumen coated fiberglass base sheet. |
| Flintlastic Ultra Glass SA | 39 ³ / ₈ " x 33'11"; Roll weight: 73 lbs. (1 square) | ASTM D1970 | Self-adhering, fiberglass reinforced, SBS modified bitumen base/ply sheet. |
| Black Diamond™ Base Sheet | 36" x 68'7"; Roll weight: 78 lbs. (2 squares) | ASTM D 1970 ASTM D4601 Type I | Self-adhering fiberglass reinforced modified bitumen base sheet |
| Flintlastic SA PlyBase | 39 ³ / ₈ " x 64' 6"; Roll weight: 86 lbs. (2 squares) | ASTM D 4601, Grade S, Type II ASTM D 1970 | Self-adhering, fiberglass reinforced, SBS modified bitumen base/ply sheet. |
| FlintBond Brush | 5 gallon pails | ASTM D 3019 | Cold applied, SBS polymer modified asphalt adhesive. |

APPROVED INSULATIONS:

TABLE 2

| Product Name | Product Description | <u>Manufacturer</u> (With Current NOA) |
|----------------------------------|-----------------------------------|---|
| FlintBoard ISO | Polyisocyanurate foam insulation | CertainTeed Corp. |
| FlintBoard ISO Cold | Polyisocyanurate foam insulation | CertainTeed Corp. |
| FlintBoard _H ISO | Polyisocyanurate foam insulation | CertainTeed Corp. |
| FlintBoard _H ISO Cold | Polyisocyanurate foam insulation | CertainTeed Corp. |
| ACFoam-II | Polyisocyanurate foam insulation | Atlas Roofing Corp. |
| ACFoam-III | Polyisocyanurate foam insulation | Atlas Roofing Corp. |
| ACFoam-IV | Polyisocyanurate foam insulation | Atlas Roofing Corp. |
| H-Shield | Polyisocyanurate foam insulation | Hunter Panels LLC |
| H-Shield-CG | Polyisocyanurate foam insulation | Hunter Panels LLC |
| DensDeck | Water resistant gypsum board | Georgia Pacific Gypsum LLC |
| DensDeck Prime | Water resistant gypsum board | Georgia Pacific Gypsum LLC |
| ENRGY 3 | Polyisocyanurate foam insulation | Johns Manville Corp. |
| ENRGY 3 25 PSI | Polyisocyanurate foam insulation | Johns Manville Corp. |
| FescoBoard | Expanded mineral fiber insulation | Johns Manville Corp. |



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APPROVED INSULATIONS:

TABLE 2

| Product Name | Product Description | <u>Manufacturer</u> (With Current NOA) |
|--|-----------------------------------|---|
| SECUROCK Gypsum-Fiber Roof Board | Gypsum insulation | USG Corp. |
| DuraBoard | Expanded mineral fiber insulation | Johns Manville Corp. |
| Structodek High Density Fiberboard Roof Insulation | Wood fiber insulation board | Blue Ridge Fiberboard, Inc. |
| ISO 95+ GL | Polyisocyanurate Insulation | Firestone Building Products Company, LLC |
| Insulfoam EPS | Expanded Polystyrene | Insulfoam, a Div. of Carlisle Const. Materials |

APPROVED FASTENERS/ADHESIVES:

TABLE 3

| <u>Fastener</u> <u>Number</u> | <u>Product</u> <u>Name</u> | <u>Product</u> <u>Description</u> | Dimensions | <u>Manufacturer</u> (With Current NOA) |
|----------------------------------|---|--|---|---|
| 1. | Dekfast DF-#14-PH3 | Insulation fastener for wood, steel and concrete decks | various | SFS Group USA, Inc. |
| 2. | Dekfast DF-#15-PH3 | Insulation fastener for wood, steel and concrete decks | various | SFS Group USA, Inc. |
| 3. | Dekfast PLT-H-2-7/8 | Galvalume hex stress plate. | 2 ⁷ / ₈ " x 3 ¹ / ₄ " | SFS Group USA, Inc. |
| 4. | Dekfast PLT-P-R-3 | Polypropylene locking plate. | 3" x 3 1/4" | SFS Group USA, Inc. |
| 5. | #14 Roofgrip | Insulation fastener | various | OMG, Inc. |
| 6. | ASAP RoofGrip Pre- Assembled System | Pre-assembled Insulation fastener and plate | various | OMG, Inc. |
| 7. | 3 in. Round Metal Plate | Galvalume AZ50 steel plate | 3" round | OMG, Inc. |
| 8. | Dekfast DF-#14-PH3-P3 | Pre-assembled Insulation fastener and plate | various | SFS Group USA, Inc. |
| 9. | Trufast #14 HD Fastener | Insulation fastener for wood and steel decks | various | Altenloh, Brinck & Co. U.S., Inc. |
| 10. | Trufast 3" Metal Insulation Plate | Galvalume AZ50 steel plate | 3" round | Altenloh, Brinck & Co. U.S., Inc. |
| 11. | Trufast 2.4" Barbed Metal Seam Plate | Galvalume AZ50 steel plate | 2.4" round | Altenloh, Brinck & Co. U.S., Inc. |
| 12. | FlintFast #14 | Insulation and membrane fastener | Various | CertainTeed Corp. |
| 13. | FlintFast 3" Insulation Plate | Galvalume AZ50 steel plate | 3" round | CertainTeed Corp. |
| 14. | Trufast #15 EHD Fastener | Coated carbon steel screw | Various | Altenloh, Brinck & Co. U.S., Inc. |



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APPROVED FASTENERS/ADHESIVES:

TABLE 3

| Fastener Number | <u>Product</u> <u>Name</u> | Product Description | <u>Dimensions</u> | <u>Manufacturer</u> (With Current NOA) |
|--------------------|---|---|--|---|
| 15. | Trufast 2" Metal Seam Plate | Galvalume steel stress plate | 2" round | Altenloh, Brinck & Co. U.S., Inc. |
| 16. | Dekfast PLT-R-3 | Steel, Galvalume AZ50 stress plate for use with all Dekfast fasteners | 3" round | SFS Group USA, Inc. |
| 17. | OMG 3" Galvalume Steel Plate | Galvalume coated steel plate for use with approved fasteners screw. | 3" round | OMG, Inc. |
| 18. | 3 in. Ribbed Galvalume Plate | Round Galvalume plated steel stress plate with reinforcing ribs for use with OMG fasteners. | 3" round | OMG, Inc. |
| 19. | AccuTrac Plate | Galvalume steel plate for use with Standard Roofgrip and Standard Hex Head fasteners. | 3" square | OMG, Inc. |
| 20. | AccuTrac Flat Bottom | A2-SS aluminized steel plate for use with #12 Roofgrip, #14 Roofgrip and #15 Roofgrip. | 3" square | OMG, Inc. |
| 21. | Flat Bottom Metal Plate | A2-SS aluminized steel plate for use with #12, #14 or #15 Roofgrip. | 3" square | OMG, Inc. |
| 22. | Trufast 3" Recessed Metal Insulation Plate | Galvalume steel stress plate for use with Trufast fasteners | 3" round | Altenloh, Brinck & Co. U.S., Inc. |
| 23. | Trufast 3" TL Insulation Plate | Galvalume steel stress plate for use with Trufast TL fasteners | 3" round | Altenloh, Brinck & Co. U.S., Inc. |
| 24. | FlintFast 2.4" Barbed Seam Plate | Galvalume AZ50 steel plate | 2.4" round | CertainTeed Corp. |
| 25. | FlintFast 3" Recessed Insulation Plate | Galvalume steel stress plate for use with FlintFast fasteners | 3" round | CertainTeed Corp. |
| 26. | Millennium One Step Foamable Adhesive | Polyurethane two component high rise insulation adhesive | See Published Details | H.B. Fuller Company |
| 27. | Millennium One Step Green Foamable Adhesive | Polyurethane two component high rise insulation adhesive | 1.5 liters | H.B. Fuller Company |
| 28. | Millennium PG-1 Low Viscosity Insulation Adhesive | Polyurethane two component low rise insulation adhesive | 1.5 liters | H.B. Fuller Company |
| 29. | ICP Adhesive CR-20 | Polyurethane two component low rise insulation adhesive | Two kits (A = 40lb and B = 35lb cylinders) | ICP Adhesives & Sealants, Inc. |
| 30. | Pliodeck Insulation Adhesive | Polyurethane one component low VOC adhesive system | See Published Details | Ashland, Inc. |



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APPROVED FASTENERS/ADHESIVES:

TABLE 3

| <u>Fastener</u> <u>Number</u> | <u>Product</u> <u>Name</u> | <u>Product</u> <u>Description</u> | Dimensions | <u>Manufacturer</u> (With Current NOA) |
|----------------------------------|-----------------------------------|---|---|---|
| 31. | Insta Stik Quik Set Insulation | Polyurethane one component moisture curing adhesive | It is supplied in pressurized cylinders with a net weight of 23 lbs., with a total unit weight of 30 lbs. | The Dow Chemical Company |
| 32. | OMG OlyBond 500 Adhesive | Spray polyurethane foam insulation adhesive | 10 gal. bag-in- box set and 1.5 liters SpotShot cartridge | OMG, Inc. |
| 33. | OMG OlyBond 500 Green Adhesive | Spray polyurethane foam insulation adhesive | 10 gal. bag-in- box set and 1.5 liters SpotShot cartridge | OMG, Inc. |

APPROVED SURFACING/COATING OPTIONS:

TABLE 4

Chosen components must be applied according to manufacturer's application instructions. Any coating, listed below, used as a surfacing, must be listed within a current NOA.

| System Number | Manufacturer | Application |
|---------------|-----------------------|--|
| 1. | Generic | Gravel applied at 400 lbs/sq., adhered with flood coat of asphalt at 60 lbs/sq. |
| 2. | Generic | Slag applied at 300 lbs/sq., adhered with flood coat of asphalt at 60 lbs/sq. |
| 3. | Karnak Corp. | Karnak (#97 AF) Fibrated Aluminum Roof Coating applied at an application rate of 1.5 gal/sq. |
| 4. | CertainTeed Corp. | FlintCoat A-150 applied at an application rate of 1.5 gal/sq. |
| 5. | Gardner Asphalt Corp. | APOC #212 Fibered Aluminum Roof Coating applied at an application rate of 1.5 gal/sq. |
| 6. | Gardner Asphalt Corp. | APOC #400 Sunbrite applied at an application rate of 3 gal./sq. |



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EVIDENCE SUBMITTED:

| Test Agency/Identifier | <u>Name</u> | Report | <u>Date</u> |
|---------------------------------|--|---|-------------|
| Factory Mutual Research Corp. | FM 4470 | 3Y8A1.AM | 03/23/96 |
| | FM 4470 | 0D3A3.AM | 04/04/97 |
| | FM 4470 | 1D7A4.AM | 11/09/98 |
| | FM 4470 | 2D0A0.AM | 12/23/98 |
| | FM 4470 | 3023458 | 07/18/06 |
| | FM 4470 | 3024177 | 07/18/06 |
| | FM 4470 | 3024311 | 11/01/06 |
| | FM 4470 | 3031350 | 09/27/07 |
| | FM 4470 | 3036182 | 07/31/09 |
| | FM 4470 | 3037127 | 01/11/10 |
| | FM 4470 | 3039046 | 06/15/10 |
| | FM 4470 | 3039848 | 12/02/11 |
| | FM 4470 | 3046104 | 08/13/13 |
| | FM 4470 | 3048520 | 09/19/13 |
| Underwriters Laboratories, Inc. | UL 790 | R11656 | 01/11/13 |
| United States Testing Company | ASTM D 5147 | 97-457-2R | 12/02/87 |
| | ASTM D 5147 | 97457-4 | 06/03/88 |
| Momentum Technologies, Inc. | ASTM D 6164 | AX31G8F | 06/05/09 |
| Trinity ERD | TAS 114 (J) | #3504.06.01-1 | 06/05/01 |
| | TAS 114 | 3521.07.04 | 07/29/04 |
| | TAS 114 (H) | Letter | 04/05/06 |
| | TAS 117 (B) | 3503.10.06 | 10/10/06 |
| | TAS 117 (B) | O6490.04.07-R1 | 06/27/07 |
| | TAS 114 | 3533.01.06-R1 | 10/26/07 |
| | TAS 117 (B) / ASTM D 6862 | C8500SC.11.07 | 11/30/07 |
| | TAS 114 | C8370.08.08 | 08/19/08 |
| | TAS 117 & TAS 114 | C30560.03.10 | 03/18/10 |
| | TAS 117 & TAS 114 | C30560.06.10 | 06/10/10 |
| | FM 4474 / TAS 114 | C31420.08.10 | 09/21/10 |
| | ASTM D 6164 / D 4798 | C31410.01.11-2 | 01/10/11 |
| | TAS 117 B | C35500.02.11 | 02/09/11 |
| | FM 4474 / TAS 114 | C37820.07.12 | 07/24/12 |
| | ASTM D1876, TAS 114 (H), TAS 117 (B) | C42110.08.12 | 08/13/12 |
| | ASTM D 4601 | C40050.09.12-1 | 09/28/12 |
| | ASTM D 4001 ASTM D 1970 | C40050.09.12-1 C40050.09.12-2 | 09/28/12 |
| | ASTM D 1970 ASTM D 5147 / D 4798 | C40030.09.12-2 C31410.10.10-R1 | 11/01/12 |
| | ASTM D 5147 / D 4798 ASTM D 5147 / D 4798 | C31410.10.10-R1 | 11/01/12 |
| | ASTM D 31477 D 4798 ASTM D 4798 | C31410.01.11-1-R1 C31410.01.11-2A-R1 | 02/21/13 |
| | ASTM D 4/98 ASTM D 1876 / TAS 114 (H) / | C44580.07.13 | 07/25/13 |
| | FM 4474 | C 11 300.07.13 | 07/23/13 |
| | ASTM D 4798 | C31410.12.13 | 12/05/13 |
| | ASTM D 6222 | C40050.12.13-R1 | 12/31/13 |



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EVIDENCE SUBMITTED:

| Test Agency/Identifier | <u>Name</u> | Report | <u>Date</u> |
|----------------------------|--------------------------------------|--------------------------|-------------|
| | ASTM D4601 | CTR-SC8740.04.15-R2 | 04/21/15 |
| | ASTM D 2178 | C47250.03.14 | 03/26/14 |
| | ASTM D 1876, TAS 114 (H), FM 4474 | C45620.03.14 | 03/27/14 |
| | ASTM D 1876, TAS 114 (H), FM 4474 | C47320.03.14-R1 | 04/01/15 |
| | ASTM D 1876 | C35460.05.11-R1 | 05/20/15 |
| | FM 4474 / UL1897 / TAS 114 (D) | CTR-SC9935.01.16-R1 | 01/19/16 |
| | FM 4474 / TAS 114 (D) | CTR-SC9175.09.16-1 | 09/06/16 |
| | ASTM D 4601 | CTR-SC11145.09.16- 3C | 09/19/16 |
| | ASTM D 4601-04 (2012), Type II | CTR-SC11145.09.16- 3A | 09/19/16 |
| | ASTM D 6163 | CTR-SC11145.09.16- 5A | 09/19/16 |
| | ASTM D 6222 | CTR-SC11145.09.16- 7A | 09/19/16 |
| | FM 4474 (B) / TAS 114 (D) | 3522.07.04-R1 | 12/22/16 |
| | TAS 114 (D) | CTR-SC15775.10.17 | 10/31/17 |
| PRI Construction Materials | ASTM D6163 | CTC-056-02-01 | 08/25/10 |
| Technologies LLC | ASTM D 6163 | CTC-066-02-01 | 08/09/11 |
| | ASTM D 6222 | CTC-071-02-01 | 08/08/11 |
| | ASTM D 6164 / D 4798 | CTC-093-02-01 | 08/09/11 |
| | ASTM D 4601 | CTC-126-02-01 | 03/12/12 |
| | ASTM D 2178 | CTC-123-02-01 | 03/13/12 |
| | ASTM D 6509 | CTC-116-02-01 | 04/04/12 |
| | ASTM D 6163 | CTC-128-02-01 | 06/11/12 |
| | ASTM D 6163 | CTC-129-02-01 | 06/11/12 |
| | ASTM D 6164 | CTC-132-02-01 | 06/11/12 |
| | ASTM D 6164 | CTC-161-02-01 | 05/09/13 |
| | ASTM D 6162 | CTC-183-02-01 | 10/02/13 |
| | ASTM D 6164 | CTC-190-02-01 | 12/02/13 |
| | ASTM D 6163 | CTC-319-02-01 | 08/22/17 |
| | ASTM D 4601 | CTC-321-02-01 | 08/22/17 |
| | ASTM D 1970 | CTC-320-02-01 | 08/28/17 |
| Dynatech Engineering Corp. | TAS 114 | 3504-12.94-1 | 10/16/95 |



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APPROVED ASSEMBLIES

Membrane Type: SBS/APP Modified

Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(1): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply.

One or more layers of any of the following insulations.

| Base Insulation Layer | Insulation Fasteners | Fastener |
|--|------------------------------|-------------------------|
| | <u>(Table 3)</u> | Density/ft ² |
| ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Co | old, ENRGY 3, Multi-Max FA-3 | 3, ISO 95+ GL, H- |
| Shield, FlintBoard _H ISO | | |
| Minimum 1.5" thick | N/A | N/A |

Note: Base layers of insulation shall be adhered with Insta Stik Quik Set Insulation Adhesive (with ACFoam-III, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, ENRGY 3, H-Shield or FlintBoard_H ISO), OMG OlyBond 500 Adhesive, OMG OlyBond 500 Green Adhesive, ICP Adhesives CR-20 (with Multi-Max FA-3, ENRGY 3, H-Shield or FlintBoard_H ISO), Millennium One Step Foamable Adhesive, Millennium One Step Green Foamable Adhesive or Millennium PG-1 Low Viscosity Insulation Adhesive (with Multi-Max FA-3 only) in 0.75 inch ribbons spaced 12 inch o.c. or hot asphalt in full coverage at a rate of 20-25 lb/sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

| Top Insulation Layer | Insulation Fasteners | <u>Fastener</u> |
|----------------------|-----------------------------|-------------------------|
| | <u>(Table 3)</u> | Density/ft ² |
| DensDeck Prime | | |
| Minimum 1/4" thick | N/A | N/A |

Note: Top layers of insulation shall be adhered with Insta Stik Quik Set Insulation Adhesive, OMG OlyBond 500 Adhesive, OMG OlyBond 500 Green Adhesive, ICP Adhesive CR-20, Millennium One Step Foamable Adhesive, Millennium One Step Green Foamable Adhesive or Millennium PG-1 Low Viscosity Insulation Adhesive in 0.75 inch ribbons spaced 12 inch o.c. or hot asphalt in full coverage at a rate of 20-25 lb/sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet: One ply of Flintlastic Ultra Glass SA, self-adhered to the insulated substrate.



NOA No.: 18-1127.19 Expiration Date: 05/19/23 Approval Date: 01/17/19 Page 10 of 89 Membrane: One ply of Flintlastic FR Cap 30, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic GMS,

Flintlastic Premium FR-P or Flintlastic Cap 30 applied in hot asphalt full coverage at a rate of

20-25 lb/sq.

Or

One ply of Flintlastic FR Cap 30 T, Flintlastic GTA, or Flintlastic GTA-FR torch adhered to

base sheet.

Surfacing: (Optional)

Any of the approved surfacing/coating options listed in Table 4.

Maximum Design

Pressure:

-52.5 psf (See General Limitation #9)



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Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(2): One or more layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations:

 $\begin{array}{c|cccc} \underline{Base\ Insulation\ Layer} & \underline{Insulation\ Fasteners} & \underline{Fastener} \\ & \underline{(Table\ 3)} & \underline{Density/ft^2} \\ ACFoam-IV & & & & N/A & N/A \end{array}$

Note: All insulation shall be adhered with hot asphalt at a rate of 25 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: One ply of Yosemite Venting Base Sheet strip-mopped to the insulated substrate with 9-inch

wide ribbons of ASTM D312, Type IV hot asphalt spaced 18-inch o.c.

Ply Sheet: One or more plies of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base

(Optional) Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 25 lbs./sq. or Flintlastic

Ultra Poly SMS Base Sheet torch applied.

Membrane: One ply of Flintlastic FR Cap 30, Flintlastic FR Dual Cap, Flintlastic FR-P or Flintlastic

Premium FR-P adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 25 lbs./sq. or Flintlastic FR Cap 30 T torch-applied to base or ply

sheet.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design -60 psf (See General Limitation #7)

Pressure:



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Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(3): Vapor retarder self-adhered to primed concrete deck; One or more layers of insulation adhered

with approved adhesive.

All General and System Limitations apply.

Vapor Retarder: One ply of Flintlastic SA PlyBase, self-adhered.

One or more layers of any of the following insulations:

Base Insulation LayerInsulation FastenersFastener(Table 3)Density/ft²

ACFoam-III, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard_H ISO

Minimum 0.5" thick N/A N/A

Top Insulation Layer Insulation Fasteners (Table 3) Fastener Density/ft²

SECUROCK Gypsum-Fiber Roof Board

Minimum ¼" thick N/A N/A

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer applied at a rate of 0.2 gal/sq and allowed to dry prior to application of vapor retarder. All insulation shall be adhered with OMG OlyBond 500 Adhesive or OMG OlyBond 500 Green Adhesive in ¾ in. ribbons spaced 12 in o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: One ply of Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or

Flintlastic Base 20 adhered to the insulated substrate using FlintBond Brush at 1.0 gal/sq.

Ply Sheet: One ply of Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or (**Optional**) Flintlastic Base 20 adhered to the base sheet using FlintBond Brush at 1.0 gal/sq.

(Optional)

Membrane: One ply of Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-P or Flintlastic

FR Cap 30 adhered to base or ply sheet using FlintBond Brush at 1.0 gal/sq.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design -75 psf (With Flintlastic Base 20) (See General Limitation #9)

Pressure: -82.5 psf (With any other base sheet listed) (See General Limitation #9)



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Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(4): One or more layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations:

Base Insulation LayerInsulation FastenersFastener(Table 3)Density/ft²

ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard_H ISO

Minimum 0.5" thick N/A N/A

Note: Concrete deck shall be unprimed. Insulation shall be adhered with OMG OlyBond 500 Adhesive or OMG OlyBond 500 Green Adhesive in ¾ in. ribbons spaced 12 in o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Top Insulation LayerInsulation FastenersFastener(Table 3)Density/ft²

ACFoam-III, FlintBoard ISO Cold, H-Shield CG, FlintBoard_H ISO Cold

Minimum 1.5" thick N/A N/A

Note: Insulation shall be adhered with OMG OlyBond 500 Adhesive or OMG OlyBond 500 Green Adhesive in ¾ in. wide beads spaced 12 in o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down. Maximum total insulation thickness is 12 in.

Base Sheet: One ply of Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or

Flintlastic Base 20 adhered to the insulated substrate using FlintBond Brush at 1.0 gal/sq.

Ply Sheet: One ply of Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or **(Optional)** Flintlastic Base 20 adhered to the base sheet using FlintBond Brush at 1.0 gal/sq.

Membrane: One ply of Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-P or Flintlastic

FR Cap 30 adhered to base or ply sheet using FlintBond Brush at 1.0 gal/sq.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design -75 psf (With Flintlastic Base 20) (See General Limitation #9)

Pressure: -82.5 psf (With any other base sheet listed) (See General Limitation #9)



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Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(5): Vapor retarder self-adhered to primed concrete deck; Insulation adhered with approved

adhesive.

All General and System Limitations apply.

Vapor Retarder: One ply of Flintlastic SA PlyBase, self-adhered.

One or more layers of any of the following insulations:

Base Insulation LayerInsulation FastenersFastener(Table 3)Density/ft²

ACFoam-III, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard_H ISO

Minimum 0.5" thick N/A N/A

Top Insulation LayerInsulation FastenersFastener(Table 3)Density/ft²

ACFoam-III, FlintBoard ISO Cold, H-Shield CG, FlintBoard_H ISO Cold

Minimum 1.5" thick N/A N/A

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer applied at a rate of 0.2 gal/sq and allowed to dry prior to application of vapor retarder. All insulation shall be adhered with OMG OlyBond 500 Adhesive or OMG OlyBond 500 Green Adhesive in ¾ in. ribbons spaced 12 in o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down. Maximum total insulation thickness is 12 in.

Base Sheet: One ply of Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or

Flintlastic Base 20 adhered to the insulated substrate using FlintBond Brush at 1.0 gal/sq.

Ply Sheet: One ply of Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly SMS Base Sheet or

(**Optional**) Flintlastic Base 20 adhered to the base sheet using FlintBond Brush at 1.0 gal/sq.

Membrane: One ply of Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-P or Flintlastic FR

Cap 30 adhered to base or ply sheet using FlintBond Brush at 1.0 gal/sq.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design -75 psf (With Flintlastic Base 20) (See General Limitation #9)

Pressure: -82.5 psf (With any other base sheet listed) (See General Limitation #9)



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Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(6): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

One or more layers of any of the following insulations:

Base Insulation LayerInsulation FastenersFastener(Table 3)Density/ft²

ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard_H ISO

Minimum 0.5" thick N/A N/A

Top Insulation LayerInsulation FastenersFastener(Table 3)Density/ft²

SECUROCK Gypsum-Fiber Roof Board

Minimum ¼" thick N/A N/A

Note: Concrete deck shall be unprimed. All insulation shall be adhered with OMG OlyBond 500 Adhesive or OMG OlyBond 500 Green Adhesive in ¾ in. ribbons spaced 12 in o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down. Maximum total thickness is 12 in.

Base Sheet: One ply of Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or

Flintlastic Base 20 adhered to the insulated substrate using FlintBond Brush at 1.0 gal/sq.

Ply Sheet: One ply of Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or

(Optional) Flintlastic Base 20 adhered to the base sheet using FlintBond Brush at 1.0 gal/sq.

Membrane: One ply of Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-P or Flintlastic

FR Cap 30 adhered to base or ply sheet using FlintBond Brush at 1.0 gal/sq.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design -75 psf (With Flintlastic Base 20) (See General Limitation #9)

Pressure: -105 psf (With Flintlastic Ultra Poly SMS Base Sheet and Flintlastic Poly SMS Base Sheet)

(See General Limitation #9)



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Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(7): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

Primer: Concrete deck primed with ASTM D41 asphalt primer at a rate of 0.75 gal/sq. and allowed to

dry prior to application of insulation.

One or more layers of any of the following insulations:

| Insulation Layer | Insulation Fasteners | Fastener |
|--|-----------------------------|-------------------------|
| | <u>(Table 3)</u> | Density/ft ² |
| Structodek High Density Fiberboard Roof Insulation | | |
| Minimum ½" thick | N/A | N/A |

FescoBoard

Minimum ¾" thick

Note: Insulation shall be adhered to the deck with hot asphalt in full coverage at a rate of 20-25 lbs/sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: One ply of Glasbase Base Sheet, Black Diamond Base Sheet, All Weather/Empire Base Sheet,

Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly SMS Base Sheet adhered to the insulated substrate with approved mopping asphalt

applied within the EVT range and at a rate of 20-40 lbs/sq.

Ply Sheet: One ply of Flintglas Ply 4, Flintlglas Premium Ply 6, Flintlastic Base 20, Flintlastic Poly SMS

(Optional) Base Sheet or Flintlastic Ultra Poly SMS Base Sheet adhered to base sheet with approved

mopping asphalt applied within the EVT range and at a rate of 20-40 lbs/sq.

Or

One ply of Flintlastic APP Base T or Flintlastic STA torched-applied to base sheet.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-

P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 25 lbs./sq. or one ply of

Flintlastic FR Cap 30 T, torched-applied to base or ply sheet.

Or

One ply of Flintlastic GTA or Flintlastic GTA-FR torched-applied to base or ply sheet.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design -105 psf. (See General Limitation #9)

Pressure:



NOA No.: 18-1127.19 Expiration Date: 05/19/23 Approval Date: 01/17/19 Page 17 of 89 **Membrane Type:** APP Modified

Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(8): Anchor sheet (optional), insulation adhered with approved asphalt.

All General and System Limitations apply.

Anchor Sheet: One ply of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet,

(Optional) Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintglas Ply 4 or Flintglas Premium Ply

6 adhered to the primed concrete deck with approved mopping asphalt applied within the EVT

range and at a rate of 20-40 lbs./sq.

One or more layers of any of the following insulations:

| Base Insulation Layer | Insulation Fasteners | <u>Fastener</u> |
|---|-----------------------------|-------------------------|
| | <u>(Table 3)</u> | Density/ft ² |
| ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, I | ENRGY 3, ENRGY 3 25 PSI. | H-Shield, |
| FlintBoard _H ISO | , | , |
| Minimum 1.5" thick | N/A | N/A |
| Structodek High Density Fiberboard Roof Insulation | | |
| Minimum ½" thick | N/A | N/A |
| FescoBoard | | |
| Minimum 3/4" thick | N/A | N/A |
| DensDeck, DensDeck Prime | | |
| Minimum ¼" thick | N/A | N/A |
| Top Insulation Layer | Insulation Fasteners | <u>Fastener</u> |
| | (Table 3) | Density/ft ² |
| Structodek High Density Fiberboard Roof Insulation | | |
| Minimum ½" thick | N/A | N/A |
| FescoBoard | | |
| Minimum 3/4" thick | N/A | N/A |
| DensDeck, DensDeck Prime | | |
| Minimum ¼" thick | N/A | N/A |

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of anchor sheet. All insulation shall be adhered in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.



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> Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the insulated substrate with approved

mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Plv Sheet: (Optional) One ply of All Weather/Empire Base Sheet, Flintlastic Ultra Poly SMS, Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or one or more plies of Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self adhered or one ply of Flintlastic

STA or Flintlastic APP Base T, torch adhered.

Membrane: One ply of Flintlastic GTA or Flintlastic GTA-FR torch adhered to base or ply sheet.

Surfacing: (Optional) Any of the approved surfacing/coating options listed in Table 4.

Maximum Design Pressure:

-107.5 psf (For top layer minimum 3/4" thick FescoBoard applied in hot asphalt.) (See General Limitations #9)

-227.5 psf (For top layer minimum 1/2" thick Structodek High Density Fiberboard Roof

Insulation applied in hot asphalt.) (See General Limitations #9)

-240 psf (For top layer minimum 1/4" thick DensDeck or DensDeck Prime applied in hot

asphalt.) (See General Limitations #9)



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Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(9): Anchor sheet (optional), insulation adhered with approved asphalt.

All General and System Limitations apply.

Anchor Sheet: One ply of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, (Optional) Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet

Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet adhered to the primed concrete deck with approved mopping asphalt applied within the EVT

range and at a rate of 20-40 lbs./sq.

One or more layers of any of the following insulations:

| Base Insulation Layer | Insulation Fasteners (Table 3) | <u>Fastener</u> Density/ft ² |
|--|--------------------------------|--|
| ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, | | |
| FlintBoard _H ISO Minimum 1.5" thick | N/A | N/A |
| Structodek High Density Fiberboard Roof Insulation Minimum ½" thick | N/A | N/A |
| FescoBoard | IV/A | IV/A |
| Minimum 3/4" thick | N/A | N/A |
| DensDeck, DensDeck Prime Minimum ¼" thick | N/A | N/A |
| Top Insulation Layer | Insulation Fasteners | Fastener |
| | (Table 3) | Density/ft ² |
| Structodek High Density Fiberboard Roof Insulation Minimum ½" thick | N/A | N/A |
| FescoBoard Minimum 3/4" thick | N/A | N/A |
| DensDeck, DensDeck Prime Minimum ¼" thick | N/A | N/A |

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of anchor sheet. All insulation shall be adhered in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.



NOA No.: 18-1127.19 Expiration Date: 05/19/23 Approval Date: 01/17/19 Page 20 of 89 **Base Sheet:** One ply of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet,

Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the insulated substrate with approved

mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional)

One ply of All Weather/Empire Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or one or more plies of Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self adhered or one ply of

Flintlastic Ultra Poly SMS Base Sheet torch adhered.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-

P or Flintlastic FR Cap 30 adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or Flintlastic FR Cap 30 T torch adhered

to base or ply sheet.

Surfacing: (Optional)

Any of the approved surfacing/coating options listed in Table 4.

Maximum Design Pressure:

-107.5 psf (For top layer minimum ³/₄" thick FescoBoard applied in hot asphalt.) (See General Limitations #9)

-227.5 psf (For top layer minimum $\frac{1}{2}$ " thick Structodek High Density Fiberboard Roof

Insulation applied in hot asphalt.) (See General Limitations #9)

-240 psf (For top layer minimum 1/4" thick DensDeck or DensDeck Prime applied in hot

asphalt.) (See General Limitations #9)



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Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2,500 psi structural concrete or concrete plank.

One or more layers of insulation adhered with approved adhesive. System Type A(10):

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft²

ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard_H ISO

Minimum 1.5" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener Density/ft²

(Table 3)

DensDeck

Minimum 1/4" thick N/A N/A

Note: All insulation shall be adhered to the deck in 3/4" – 1" wide beads of Insta-Stik Quik Set Insulation Adhesive or Millennium One Step Foamable Insulation Adhesive, Millennium One Step Green Foamable Adhesive or Millennium PG-1 Low Viscosity Insulation Adhesive spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Base Sheet: One or more plies of All Weather/Empire Base Sheet, Flintlastic Base 20, Flintlastic Poly

> SMS Base Sheet or Flintlastic Ultra Poly SMS Base adhered to the insulated substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch applied.

Plv Sheet: One ply of All Weather/Empire Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base

(Optional) Sheet or Flintlastic Ultra Poly SMS Base adhered to the base sheet with approved mopping

asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Flintlastic

Base 20 T or Flintlastic Ultra Poly SMS Base Sheet torch applied.

One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium Membrane:

> FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or one ply of

Flintlastic FR Cap 30 T, torch applied to base or ply sheet.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design -112.5 psf (With Insta-Stik Quik Set Insulation Adhesive) (See General Limitation #9)

-180 psf (With Millennium One Step Foamable Insulation Adhesive) (See General **Pressure:**

Limitation # 9)



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Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2,500 psi structural concrete or concrete plank.

System Type A(11): One or more layers of insulation adhered with approved asphalt.

All General and System limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer | Insulation Fasteners (Table 3) | <u>Fastener</u> <u>Density/ft²</u> |
|---|-----------------------------------|---------------------------------------|
| ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold Minimum 1.5" thick | N/A | N/A |
| Top Insulation Layer | Insulation Fasteners | <u>Fastener</u> <u>Density/ft²</u> |
| SECUROCK Gypsum-Fiber Roof Board | | |

Minimum ¹/₄" thick N/A N/A

Note: All insulation shall be adhered to the deck with Pliodek Insulation Adhesive, Millennium PG-1 Low Viscosity Insulation Adhesive, ICP Adhesive CR-20 applied in ½" to ¾" ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Base Sheet: One or more plies of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self adhered to

the insulated substrate.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-

P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base sheet with approved mopping

asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq.

Or

One ply of Flintlastic FR Cap 30 T torch adhered to base sheet.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design

Pressure: -117.5 psf (See General Limitation #9)



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Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(12): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation LayerInsulation FastenersFastener(Table 3)Density/ft2

ACFoam-III, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, ENRGY 3, Multi-Max FA-3, ISO 95+ GL, H-

Shield, FlintBoard_H ISO

Minimum 1.5" thick N/A N/A

Top Insulation LayerInsulation FastenersFastener(Table 3)Density/ft2

ACFoam-III, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, ENRGY 3, Multi-Max FA-3, ISO 95+ GL, H-

Shield, FlintBoard_H ISO

Minimum 1.5" thick N/A N/A

Note: Multi layers of insulation shall be adhered with Insta Stik Quik Set Insulation Adhesive, OMG OlyBond 500 Adhesive, OMG OlyBond 500 Green Adhesive, ICP Adhesive CR-20, Millennium One Step Foamable Adhesive, Millennium One Step Green Foamable Adhesive or Millennium PG-1 Low Viscosity Insulation Adhesive in 0.75 inch ribbons spaced 12 inch o.c. or hot asphalt in full coverage at a rate of 20-25 lb/sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet: One ply of Flintlastic Ultra Glass SA, self-adhered to the insulated substrate.

Membrane: One ply of Flintlastic FR Cap 30, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic GMS,

Flintlastic Premium FR-P or Flintlastic Cap 30 applied to base sheet in hot asphalt full coverage

at a rate of 20-25 lb/sq.

Or

One ply of Flintlastic FR Cap 30 T, Flintlastic GTA or Flintlastic GTA-FR torch adhered to

base sheet.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design

Pressure: -135 psf (See General Limitation #9)



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Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2,500 psi structural concrete or concrete plank.

System Type A(13): One or more layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation LayerInsulation Fasteners
(Table 3)Fastener
Density/ft²

ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard_H ISO

Minimum 1.5" thick N/A N/A

Top Insulation Layer Insulation Fasteners (Table 3) Fastener Density/ft²

DensDeck, DensDeck Prime

Minimum ¼" thick N/A N/A

Note: All insulation shall be adhered to the deck in 1" wide ribbons of OMG OlyBond 500 Adhesive or OMG OlyBond 500 Green Adhesive, spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Base Sheet: One or more plies of All Weather/Empire Base Sheet, Flintlastic Base 20, Flintlastic Poly

SMS Base Sheet or Flintlastic Ultra Poly SMS Base adhered to the insulated substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch applied.

Ply Sheet: One ply of All Weather/Empire Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base **(Optional)** Sheet or Flintlastic Ultra Poly SMS Base adhered to the base sheet with approved mopping

Sheet or Flintlastic Ultra Poly SMS Base adhered to the base sheet with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Flintlastic

Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch applied.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium

FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or one ply of

Flintlastic FR Cap 30 T, torch applied to base or ply sheet.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design -150 psf (See General Limitation #9)

Pressure:

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Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2,500 psi structural concrete or concrete plank.

System Type A(14): One or more layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation LayerInsulation Fasteners
(Table 3)Fastener
Density/ft²

ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard_H ISO

Minimum 1.5" thick N/A N/A

Top Insulation LayerInsulation FastenersFastener(Table 3)Density/ft²

DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board

Minimum ¼" thick N/A N/A

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of insulation. All insulation shall be adhered to the deck in full mopping of approved hot asphalt within the EVT range and at a rate of 25 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Base Sheet: One or more plies of All Weather/Empire Base Sheet, Flintlastic Base 20, Flintlastic Poly

SMS Base Sheet or Flintlastic Ultra Poly SMS Base adhered to the insulated substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one

ply of Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch applied.

Ply Sheet: One ply of All Weather/Empire Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base

(**Optional**) Sheet or Flintlastic Ultra Poly SMS Base adhered to the base sheet with approved mopping

asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Flintlastic

Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch applied.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-

P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base/ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or one ply of

Flintlastic FR Cap 30 T, torch applied to base or ply sheet.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design

Pressure: -180 psf (See General Limitation #9)



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Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2,500 psi structural concrete or concrete plank.

System Type A(15): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation LayerInsulation FastenersFastener(Table 3)Density/ft²

ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard_H ISO

Minimum 1.5" thick N/A N/A

Top Insulation Layer Insulation Fasteners (Table 3) Fastener Density/ft²

SECUROCK Gypsum-Fiber Roof Board

Minimum ¼" thick N/A N/A

Note: All insulation shall be adhered to the deck in 3/4" – 1" wide beads of Insta-Stik Quik Set Insulation Adhesive or 1" wide ribbons of OMG OlyBond 500 Adhesive or OMG OlyBond 500 Green, spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Base Sheet: One or more plies of All Weather/Empire Base Sheet, Flintlastic Base 20, Flintlastic Poly

SMS Base Sheet or Flintlastic Ultra Poly SMS Base adhered to the insulated substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch applied.

Ply Sheet: One ply of All Weather/Empire Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base

(Optional) Sheet or Flintlastic Ultra Poly SMS Base adhered to the base sheet with approved mopping

asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Flintlastic

Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch applied.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium

FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or one ply of

Flintlastic FR Cap 30 T, torch applied to base or ply sheet.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design -180 psf (See General Limitation #9)

Pressure:



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Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2,500 psi structural concrete or concrete plank.

System Type A(16): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation LayerInsulation FastenersFastener(Table 3)Density/ft²

ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard_H ISO

Minimum 1.5" thick N/A N/A

Top Insulation Layer Insulation Fasteners (Table 3) Fastener Density/ft²

SECUROCK Gypsum-Fiber Roof Board, DensDeck

Minimum ¼" thick N/A N/A

Note: All insulation shall be adhered to the deck in ½" – ¾" wide beads of Millennium One Step Foamable Adhesive, Millennium One Step Green Foamable Adhesive, Millennium PG-1 Low Viscosity Insulation Adhesive or in full coverage of OlyBond Adhesive Fastener applied at a rate of 1 gal/sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Base Sheet: One or more plies of All Weather/Empire Base Sheet, Flintlastic Base 20, Flintlastic Poly

SMS Base Sheet or Flintlastic Ultra Poly SMS Base adhered to the insulated substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch applied.

Ply Sheet: One ply of All Weather/Empire Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base

(Optional) Sheet or Flintlastic Ultra Poly SMS Base adhered to the base sheet with approved mopping

asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Flintlastic

Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch applied.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium

FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or one ply of

Flintlastic FR Cap 30 T, torch applied.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design

Pressure: -180 psf (See General Limitation #9)



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Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2,500 psi structural concrete or concrete plank.

System Type A(17): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation LayerInsulation FastenersFastener(Table 3)Density/ft²

ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard_H ISO

Minimum 1.5" thick N/A N/A

Top Insulation LayerInsulation FastenersFastener(Table 3)Density/ft²

DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board

Minimum ½" thick N/A N/A

Note: All insulation shall be adhered to the deck in 3" – 3.5" wide ribbons of ICP adhesive CR-20, spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Base Sheet: One or more plies of All Weather/Empire Base Sheet, Flintlastic Base 20, Flintlastic Poly

SMS Base Sheet or Flintlastic Ultra Poly SMS Base adhered to the insulated substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch applied.

Ply Sheet: One ply of All Weather/Empire Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base

(**Optional**) Sheet or Flintlastic Ultra Poly SMS Base adhered to the base sheet with approved mopping

asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Flintlastic

Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch applied.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium

FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or one ply of

Flintlastic FR Cap 30 T, torch applied.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design

Pressure: -180 psf (See General Limitation #9)



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Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2,500 psi structural concrete or concrete plank.

System Type A(18): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer | Insulation Fasteners (Table 3) | <u>Fastener</u> <u>Density/ft²</u> |
|--|-----------------------------------|---------------------------------------|
| ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold Minimum 1.5" thick | N/A | N/A |
| Top Insulation Layer | Insulation Fasteners (Table 3) | <u>Fastener</u> <u>Density/ft²</u> |
| SECUROCK Gypsum-Fiber Roof Board Minimum ¹ / ₄ " thick | N/A | N/A |

Note: All insulations shall be adhered to the deck in $\frac{1}{4}$ " – $\frac{1}{2}$ " wide beads of Ashland Pliodeck Insulation Adhesive spaced 6" o.c or in full mopping of approved hot asphalt within the EVT range and at a rate of 25 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Base Sheet: One ply of All Weather/Empire Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base

Sheet or Flintlastic Ultra Poly SMS Base adhered to the insulated substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of

Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torched-applied.

Ply Sheet: One ply of All Weather/Empire Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base (**Optional**) Sheet or Flintlastic Ultra Poly SMS Base adhered to the base sheet with approved mopping

Sheet or Flintlastic Ultra Poly SMS Base adhered to the base sheet with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Flintlastic

Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torched-applied.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium

FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or ply sheet with

approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or

one ply of Flintlastic FR Cap 30 T, torched-applied.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design -180.0 psf (See General Limitation #9)

Pressure:



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Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2,500 psi structural concrete or concrete plank.

One or more layers of insulation adhered with approved adhesive. System Type A(19):

All General and System Limitations apply.

One or more layers of any of the following insulations:

Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft² Structodek High Density Fiberboard Roof Insulation, FescoBoard Minimum ½" thick N/A N/A

Note: All insulations shall be adhered to the deck in 2-1/2" wide beads of ICP Adhesive CR-20 spaced 12" o.c. or in 3/4" - 1" wide beads of Insta Stik Ouik Set Insulation Adhesive, OMG OlyBond 500 Adhesive or OMG OlyBond 500 Green Adhesive spaced 12" o.c. or in ½" - ¾" wide beads of Millennium PG-1 Low Viscosity Insulation Adhesive spaced 12" o.c. or in 1/4" - 1/2" wide beads of Ashland Pliodeck Insulation Adhesive spaced 6" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of Glasbase Base Sheet, All Weather/Empire Base Sheet, Flexiglas Base Sheet or

> Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or one or more plies of Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the insulated substrate in a full mopping of approved asphalt applied within the EVT range and at a rate

of 20-40 lbs./sq.

One ply of Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the base sheet in a full **Ply Sheet** (Optional): mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium Membrane:

> FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

-195 psf (See General Limitation #9) **Maximum Design**

Pressure:



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Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2,500 psi structural concrete or concrete plank.

System Type A(20): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

One or more layers of any of the following insulations:

 Insulation Layer
 Insulation Fasteners (Table 3)
 Fastener Density/ft²

 DensDeck, DensDeck Prime
 Density/ft²

DensDeck, DensDeck Prime Minimum ¹/₄" thick

N/A N/A

Note: All insulations shall be adhered to the deck in $\frac{1}{2}$ " – $\frac{3}{4}$ " wide beads of Millennium PG-1 Low Viscosity Insulation Adhesive spaced 12" o.c. or in $\frac{1}{4}$ " – $\frac{1}{2}$ " wide beads of Ashland Pliodeck Insulation Adhesive spaced 6" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of Glasbase Base Sheet, All Weather/Empire Base Sheet, Flexiglas Base Sheet or

Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or one or more plies of Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the insulated substrate in a full mopping of approved asphalt applied within the EVT range and at a rate

of 20-40 lbs./sq.

Ply Sheet One ply of Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the base sheet in a full **(Optional):** mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium

FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design -195 psf (See General Limitation #9)

Pressure:



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Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2,500 psi structural concrete or concrete plank.

One or more layers of insulation adhered with approved adhesive. System Type A(21):

All General and System Limitations apply.

One or more layers of any of the following insulations:

Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft²

SECUROCK Gypsum-Fiber Roof Board

Minimum ¹/₄" thick N/A N/A

Note: All insulations shall be adhered to the deck in 2-1/2" wide beads of ICP Adhesive CR-20 spaced 12" o.c. or in 3/4" - 1" wide beads of Insta Stik Ouik Set Insulation Adhesive, OMG OlyBond 500 Adhesive or OMG OlyBond 500 Green Adhesive spaced 12" o.c. or in ½" - ¾" wide beads of or Millennium PG-1 Low Viscosity Insulation Adhesive spaced 12" o.c. or in 1/4" - 1/2" wide beads of Ashland Pliodeck Insulation Adhesive spaced 6" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of Glasbase Base Sheet, All Weather/Empire Base Sheet, Flexiglas Base Sheet or

> Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or one or more plies of Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the insulated substrate in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch

applied.

Ply Sheet One ply of Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the base sheet in a full (Optional):

mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium Membrane:

> FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

-195 psf (See General Limitation #9) **Maximum Design**

Pressure:



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Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2,500 psi structural concrete or concrete plank.

One or more layers of insulation adhered with approved asphalt. System Type A(

22):

All General and System limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer | Insulation Fasteners (Table 3) | <u>Fastener</u> <u>Density/ft²</u> |
|---|-----------------------------------|---------------------------------------|
| ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold Minimum 1.5" thick | N/A | N/A |
| Top Insulation Layer | Insulation Fasteners | <u>Fastener</u> |

SECUROCK Gypsum-Fiber Roof Board

Minimum 1/4" thick N/A N/A

Note: All insulation shall be adhered to the deck with Pliodek Insulation Adhesive, Millennium PG-1 Low Viscosity Insulation Adhesive, ICP Adhesive CR-20 applied in 1/2" to 3/4" ribbons spaced 6" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Base Sheet: One or more plies of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self adhered to

the insulated base sheet.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-

P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base sheet with approved mopping

(Table 3)

asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq.

Or

One ply of Flintlastic FR Cap 30 T torch adhered to base sheet.

Surfacing: (Optional) Any of the approved surfacing/coating options listed in Table 4.

Maximum Design

-217.5 psf (See General Limitation #9) **Pressure:**



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Density/ft²

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Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2,500 psi structural concrete or concrete plank.

System Type A(23): One or more layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations:

Base Insulation LayerInsulation Fasteners
(Table 3)Fastener
Density/ft²

ACFoam-III, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, ENRGY 3, H-Shield, FlintBoard_H ISO Minimum 2" thick N/A N/A

Top Insulation LayerInsulation FastenersFastener(Table 3)Density/ft²

SECUROCK Gypsum-Fiber Roof Board

Minimum ¼" thick N/A N/A

Note: All insulation shall be adhered with hot asphalt at a rate of 25 lbs/100 ft² or Insta StikTM Quik Set Insulation Adhesive, OMG OlyBond 500 Adhesive, OMG OlyBond 500 Green Adhesive, Millennium One StepTM Foamable Adhesive, Millennium One Step Green Foamable Adhesive, Millennium PG-1 Low Viscosity Insulation Adhesive or ICP Adhesive CR-20 in ¾ in. ribbons spaced 12 in o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: One ply of All Weather/Empire Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base

Sheet or Flintlastic Ultra Poly SMS Base adhered to the insulated substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of

Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet torch adhered.

Ply Sheet: One ply of All Weather/Empire Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base

(Optional) Sheet, Flintlastic Ultra Poly SMS Base Sheet adhered to the base sheet with approved

mopping asphalt applied within the EVT range and at a rate of 20-40 lbs/sq. or one ply of

Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch adhered.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium

FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or ply sheet with

approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or

one ply of Flintlastic FR Cap 30 T torch adhered to base or ply sheet.



NOA No.: 18-1127.19 Expiration Date: 05/19/23 Approval Date: 01/17/19 Page 35 of 89 **Surfacing:** Any of the approved surfacing/coating options listed in Table 4. **(Optional)**

Maximum Design -232.5 psf (See General Limitation #9)

Pressure:



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Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2,500 psi structural concrete or concrete plank.

System Type A(24): One or more layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer | <u>Insulation Fasteners</u> (Table 3) | <u>Fastener</u> <u>Density/ft²</u> |
|--|--|---------------------------------------|
| ISO 95+ GL Minimum 2" thick | N/A | N/A |
| Top Insulation Layer | <u>Insulation Fasteners</u> (Table 3) | <u>Fastener</u> <u>Density/ft²</u> |
| SECUROCK Gypsum-Fiber Roof Board Minimum ¼" thick | N/A | N/A |

Note: All insulation shall be adhered with hot asphalt at a rate of 25 lbs/100 ft² or Insta Stik™ Quik Set Insulation Adhesive or Millennium One Step™ Foamable Adhesive, Millennium One Step Green Foamable Adhesive or Millennium PG-1 Low Viscosity Insulation Adhesive in ¾ in. ribbons spaced 12 in o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: One ply of All Weather/Empire Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base

Sheet or Flintlastic Ultra Poly SMS Base adhered to the insulated substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of

Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet torch adhered.

Ply Sheet: One ply of All Weather/Empire Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base

(Optional) Sheet, Flintlastic Ultra Poly SMS Base Sheet adhered to the base sheet with approved

mopping asphalt applied within the EVT range and at a rate of 20-40 lbs/sq. or one ply of

Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch adhered.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium

FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or ply sheet with

approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or

one ply of Flintlastic FR Cap 30 T torch adhered to base or ply sheet.



NOA No.: 18-1127.19 Expiration Date: 05/19/23 Approval Date: 01/17/19 Page 37 of 89 **Surfacing:** Any of the approved surfacing/coating options listed in Table 4. **(Optional)**

Maximum Design -232.5 psf (See General Limitation #9)

Pressure:



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Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(25): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer | Insulation Fasteners (Table 3) | <u>Fastener</u> <u>Density/ft²</u> |
|--|-----------------------------------|---------------------------------------|
| ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold Minimum 1.5" thick | N/A | N/A |
| Top Insulation Layer | Insulation Fasteners (Table 3) | <u>Fastener</u> <u>Density/ft²</u> |
| DensDeck, DensDeck Prime Minimum ¼" thick | N/A | N/A |

Note: All insulation shall be adhered to the deck in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: One ply of All Weather/Empire Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base

Sheet or Flintlastic Ultra Poly SMS Base adhered to the insulated substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of

Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet torch applied.

Ply Sheet: One ply of All Weather/Empire Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base (**Optional**) Sheet or Flintlastic Ultra Poly SMS Base adhered to the base sheet with approved mopping

Sheet or Flintlastic Ultra Poly SMS Base adhered to the base sheet with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Flintlastic

Base 20 T or Flintlastic Ultra Poly SMS Base Sheet torch applied.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium

FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or ply sheet with

approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or

one ply of Flintlastic FR Cap 30 T, torch adhered to base or ply sheet.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design -240 psf (See General Limitations #9)

Pressure:



NOA No.: 18-1127.19 Expiration Date: 05/19/23 Approval Date: 01/17/19 Page 39 of 89 **Membrane Type:** APP Modified

Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(26): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation LayerInsulation Fasteners
(Table 3)Fastener
Density/ft²

ACFoam-III, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard_H ISO

Minimum 1.5" thick N/A N/A

Top Insulation LayerInsulation FastenersFastener(Table 3)Density/ft²

SECUROCK Gypsum-Fiber Roof Board

Minimum ¹/₄" thick N/A N/A

Note: All insulation shall be adhered with Millennium One Step Foamable Adhesive, Millennium One Step Green Foamable Adhesive, Millennium PG-1 Low Viscosity Insulation Adhesive, Insta-Stik Quik Set Insulation Adhesive, OMG OlyBond 500 Adhesive or OMG OlyBond 500 Green Adhesive in 3/4" – 1" wide beads spaced 12 inch o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of Flintlastic STA or Flintlastic APP Base T, torch adhered to the insulated

substrate.

Ply Sheet: One ply of Flintlastic STA or Flintlastic APP Base T, torch adhered to base sheet.

(Optional)

Membrane: One ply of Flintlastic GTA or Flintlastic GTA-FR, torch adhered to base or ply sheet.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

Maximum Design

Pressure:

-252.5 psf (See General Limitation #9)



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Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(27): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer | <u>Insulation Fasteners</u> (<u>Table 3</u>) | <u>Fastener</u> <u>Density/ft²</u> |
|--|---|---------------------------------------|
| ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold Minimum 1.5" thick | N/A | N/A |
| Top Insulation Layer | Insulation Fasteners (Table 3) | <u>Fastener</u> <u>Density/ft²</u> |
| DensDeck (Only with Millennium PG-1 Low Viscosity Insulation Adhe | esive) | |
| Minimum 1/4" thick | N/A | N/A |
| DensDeck Prime Minimum ¹ / ₄ " thick | N/A | N/A |

Note: All insulations shall be adhered to the deck in $\frac{3}{4}$ " - 1" wide beads of Insta Stik Quik Set Insulation Adhesive spaced 12" o.c. or in $\frac{1}{2}$ " - $\frac{3}{4}$ " wide beads or Millennium PG-1 Low Viscosity Insulation Adhesive spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: One ply of Glasbase Base Sheet, All Weather/Empire Base Sheet, Flexiglas Base Sheet,

Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or one or more plies of Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the insulated substrate in a full mopping of approved asphalt applied within the EVT range and at a rate of

20-40 lbs./sq.

Ply Sheet One ply of Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to base sheet in a full mopping

(**Optional**): of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium

FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or ply sheet with approved

mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq.



NOA No.: 18-1127.19 Expiration Date: 05/19/23 Approval Date: 01/17/19 Page 41 of 89 **Surfacing:** Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design -270 psf (With DensDeck) (See General Limitation #9)

Pressure: -297.5 psf (See General Limitation #9)



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Concrete Decks, Insulated Deck Type 3I:

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(28): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer | Insulation Fasteners (Table 3) | <u>Fastener</u> <u>Density/ft²</u> |
|---|-----------------------------------|--|
| ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold Minimum 1.5" thick | N/A | N/A |
| Top Insulation Layer | Insulation Fasteners (Table 3) | <u>Fastener</u> <u>Density/ft²</u> |
| SECUROCK Gypsum-Fiber Roof Board Minimum ¹ / ₄ " thick | N/A | N/A |

Note: All insulations shall be adhered to the deck in 3/4" - 1" wide beads of Insta Stik Quik Set Insulation Adhesive, OMG OlyBond 500 Adhesive or OMG OlyBond 500 Green Adhesive spaced 12" o.c. or in ½" - ¾" wide beads or Millennium PG-1 Low Viscosity Insulation Adhesive spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: One ply of Glasbase Base Sheet, All Weather/Empire Base Sheet, Flexiglas Base Sheet,

> Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or one or more plies of Flintglas Ply 4 or Flintlgas Premium Ply 6 adhered to the insulated substrate in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch

applied.

Plv Sheet One ply of Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the base sheet in a full (Optional):

mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium Membrane:

> FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq.



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Surfacing: Any of the approved surfacing/coating options listed in Table 4. **(Optional)**

Maximum Design -297.5 psf (See General Limitation #9)

Pressure:



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Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(29): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer | Insulation Fasteners (Table 3) | <u>Fastener</u> <u>Density/ft²</u> |
|--|-----------------------------------|---------------------------------------|
| ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold Minimum 1.5" thick | N/A | N/A |
| Top Insulation Layer | Insulation Fasteners | Fastener |
| Top insulation Layer | (Table 3) | Density/ft ² |
| DensDeck Prime | | |
| Minimum ¹ / ₄ " thick | N/A | N/A |

Note: Insulation shall be adhered to the deck in 3/4" – 1" wide beads of Insta Stik Quik Set Insulation Adhesive 12" o.c. or in 1/2" – 3/4" wide beads of Millennium PG-1 Low Viscosity Insulation Adhesive spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: One ply of All Weather/Empire Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base

Sheet or Flintlastic Ultra Poly SMS Base adhered to the insulated substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of

Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet torched-applied.

Ply Sheet: One ply of All Weather/Empire Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base (**Optional**) Sheet or Flintlastic Ultra Poly SMS Base adhered to the base sheet with approved mopping

Sheet or Flintlastic Ultra Poly SMS Base adhered to the base sheet with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Flintlastic

Base 20 T or Flintlastic Ultra Poly SMS Base Sheet torched-applied.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium

FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or ply sheet with

approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or

one ply of Flintlastic FR Cap 30 T, torched-applied.



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Maximum Design -302.5 psf (See General Limitation #9)

Pressure:



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Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(30): One or more layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

Primer: Concrete deck primed with ASTM D41 asphalt primer at a rate of 0.75 gal/sq. and allowed

to dry prior to application of insulation.

One or more layers of any of the following insulations:

Insulation LayerInsulation FastenersFastener(Table 3)Density/ft²

ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard ISO_H

Minimum 1.5" thick N/A N/A

Note: Insulation shall be adhered to the deck in hot asphalt in full coverage at a rate of 20-25 lbs/sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: One ply of Flintlastic Ultra Glass SA self-adhered to the insulated substrate.

Ply Sheet: One ply of Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly

(**Optional**) SMS Base Sheet adhered to base sheet with approved mopping asphalt applied within the

EVT range and at a rate of 20-40 lbs/sq.

Or

One ply of Flintlastic APP Base T or Flintlastic STA torched-applied to base sheet.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium

FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or ply sheet with

approved mopping asphalt applied within the EVT range and at a rate of 20 to 25 lbs./sq. or

one ply of Flintlastic FR Cap 30 T torched-applied to base or ply sheet.

Or

One ply of Flintlastic GTA or Flintlastic GTA-FR torched-applied to base or ply sheet.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design

-322.5 psf. (See General Limitation #9)

Pressure:



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Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(31): Base sheet and insulation adhered with approved asphalt..

All General and System Limitations apply.

One or more layers of any of the following insulations:

| Insulation Layer | Insulation Fasteners | Fastener |
|---|-----------------------------|-------------------------|
| | <u>(Table 3)</u> | Density/ft ² |
| ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoardH ISO | | |
| Minimum 1.5" thick | N/A | N/A |

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: One ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA, self-adhered to the

insulated base sheet.

Membrane: One ply of Flintlastic FR Cap 30 T, Flintlastic GTA or Flintlastic GTA-FR torch adhered to

base sheet.

Or

One ply of Flintlastic FR Cap 30, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic Cap 30 or Flintlastic GMS adhered to base sheet with approved

mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq.

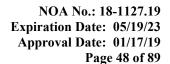
Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design

Pressure:

-307.5 psf (See General Limitations #9)





Membrane Type: APP Modified

Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

Base sheet and insulation adhered with approved asphalt. System Type A(32):

All General and System Limitations apply.

One or more layers of any of the following insulations:

Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft²

ENRGY 3, H-Shield, FlintBoard_H ISO Minimum 1.5" thick

N/A N/A

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of insulation. All insulation shall be adhered in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

One ply of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, **Base Sheet:**

> Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the insulated substrate with approved

mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: One ply of Flintlastic Ultra Poly SMS Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, (Optional) Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or one or more plies of Flintglas Ply 4 or

Flintglas Premium Ply 6 adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self adhered or one ply of Flintlastic STA or Flintlastic

APP Base T torch adhered.

Membrane: One ply of Flintlastic GTA or Flintlastic GTA-FR torch adhered to base or ply sheet.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

-355 psf (See General Limitations #9) **Maximum Design**

Pressure:



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Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(33): Base sheet and insulation adhered with approved asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations:

Insulation LayerInsulation FastenersFastener(Table 3)Density/ft²

ENRGY 3, H-Shield, FlintBoard_H ISO Minimum 1.5" thick

N/A N/A

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of insulation. All insulation shall be adhered in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: One ply of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet,

Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the insulated substrate with approved

mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: One ply of All Weather/Empire Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Glasbase (**Optional**) Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or one

or more plies of Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Flintlastic Ultra Poly SMS Base Sheet torch applied or one ply of Black Diamond

Base Sheet or Flintlastic Ultra Glass SA self adhered.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-

P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or Flintlastic

FR Cap 30 T torch adhered to base or ply sheet.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design -355 psf (See General Limitations #9)

Pressure:



NOA No.: 18-1127.19 Expiration Date: 05/19/23 Approval Date: 01/17/19 Page 50 of 89 **Membrane Type:** APP Modified

Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(34): Base sheet and insulation adhered with approved asphalt.

All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation LayerInsulation FastenersFastener(Table 3)Density/ft²

ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard_H ISO

Minimum 1.5" thick N/A N/A

Top Insulation Layer Insulation Fasteners Fastener (Table 3) Density/ft²

FescoBoard

Minimum 0.75" thick N/A N/A

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of insulation. All insulation shall be adhered in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: One ply of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet,

Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the insulated substrate with approved

mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: One ply of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet,

(Optional) Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or

one or more plies of Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self adhered or one ply

of Flintlastic STA or Flintlastic APP Base T torch adhered.

Membrane: One ply of Flintlastic GTA or Flintlastic GTA-FR torch adhered to base or ply sheet.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design

-390.9 psf. (See General Limitation #9)

Pressure:



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Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(35): Base sheet and insulation adhered with approved asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer | <u>Insulation Fasteners</u> (<u>Table 3)</u> | <u>Fastener</u> <u>Density/ft²</u> |
|---|---|---------------------------------------|
| ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard IS Minimum 1.5" thick | SO Cold, H-Shield, FlintBoard _H ISO N/A | N/A |
| Top Insulation Layer | <u>Insulation Fasteners</u> (Table 3) | Fastener Density/ft ² |

FescoBoard

Minimum 0.75" thick N/A N/A

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of insulation. All insulation shall be adhered in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: One ply of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet,

Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the insulated substrate with approved

mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: One ply of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet,

(Optional) Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or one or more plies of Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Flintlastic Ultra Poly SMS Base Sheet torch applied or one ply of Black Diamond

Base Sheet or Flintlastic Ultra Glass SA self adhered.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-

P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or Flintlastic

FR Cap 30 T torch adhered to base or ply sheet.



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Any of the approved surfacing/coating options listed in Table 4. **Surfacing:**

(Optional)

Maximum Design

-390.9 psf. (See General Limitation #9) **Pressure:**



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Membrane Type: APP Modified

Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(36): Base sheet and insulation adhered with approved asphalt.

All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation LayerInsulation FastenersFastener(Table 3)Density/ft²

ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard_H ISO

Minimum 1.5" thick N/A N/A

Top Insulation LayerInsulation FastenersFastener(Table 3)Density/ft²

DuraBoard

Minimum 0.5" thick N/A N/A

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of insulation. All insulation shall be adhered in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: One ply of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet,

Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the insulated substrate with approved

mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: One ply of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet,

(Optional) Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or

one or more plies of Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self adhered or one ply

of Flintlastic STA or Flintlastic APP Base T torch adhered.

Membrane: One ply of Flintlastic GTA or Flintlastic GTA-FR torch adhered to base or ply sheet.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design

Pressure: -430 psf. (See General Limitation #9)



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Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(37): Base sheet and insulation adhered with approved asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations:

| Top Insulation Layer | Insulation Fasteners | <u>Fastener</u> |
|--|--|---------------------------------------|
| ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, Minimum 1.5" thick | H-Shield, FlintBoard _H ISO N/A | N/A |
| Base Insulation Layer | Insulation Fasteners (Table 3) | <u>Fastener</u> <u>Density/ft²</u> |

DuraBoard

Minimum 0.5" thick N/A N/A

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of insulation. All insulation shall be adhered in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: One ply of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet,

Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the insulated substrate with approved

(Table 3)

mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: One ply of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet,

(Optional) Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or one or more plies of Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the base sheet in a full monning of approved asphalt applied within the EVT range and at a rate of 20, 40 lbs /sq.

full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Flintlastic Ultra Poly SMS Base Sheet torch applied or one ply of Black Diamond

Base Sheet or Flintlastic Ultra Glass SA self adhered.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-

P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or Flintlastic

FR Cap 30 T torch adhered to base or ply sheet.



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Density/ft²

Surfacing: (Optional)

Any of the approved surfacing/coating options listed in Table 4.

Maximum Design

-430 psf. (See General Limitation #9)

Pressure:



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Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(38): One or more layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer | Insulation Fasteners | <u>Fastener</u> |
|---|-----------------------------|-------------------------|
| | <u>(Table 3)</u> | Density/ft ² |
| Structodek High Density Fiberboard Roof Insulation, Fesco Board | | |
| Minimum 0.5" thick | N/A | N/A |
| | | |
| DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board | d | |
| Minimum ¹ / ₄ " thick | N/A | N/A |

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of insulation. All insulations shall be adhered to the deck in full mopping of approved hot asphalt within the EVT range and at a rate of 25 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: One ply of Glasbase Base Sheet, All Weather/Empire Base Sheet, Flexiglas Base Sheet,

Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly SMS Base Sheet adhered to the insulated substrate in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or Flintlastic Ultra Poly SMS Base

Sheet* torch applied.

*only when using SECUROCK Gypsum-Fiber Roof Board.

Ply Sheet One ply of Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to base sheet in a full

(**Optional**): mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or

Flintlastic Ultra Poly SMS Base Sheet torch applied.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium

FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or ply sheet with

approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or

Flintlastic FR Cap 30 T torch adhered to base or ply sheet.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design -437.5 psf (Structodek High Density Fiberboard Roof Insulation or Fesco Board) (See

Pressure: General Limitation #9)

-537.5 psf (See General Limitation #9)



NOA No.: 18-1127.19 Expiration Date: 05/19/23 Approval Date: 01/17/19 Page 57 of 89 **Membrane Type:** APP Modified

Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type B(1): Base layer of insulation mechanically fastened, optional top layer adhered with approved

asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer | Insulation Fasteners | Fastener |
|---|---------------------------------------|-------------------------|
| | <u>(Table 3)</u> | Density/ft ² |
| ENRGY 3, ENRGY 3 25 PSI | | |
| Minimum 1.4" thick | 1, 5 or 9, 12 | 1:2 ft ² |
| Minimum 2" thick | 1, 5 or 9, 12 | 1:3.2 ft ² |
| ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, | H-Shield, FlintBoard _H ISO | |
| Minimum 1.5" thick | 1, 5 or 9, 12 | 1:2 ft ² |
| Minimum 2" thick | 1, 5 or 9, 12 | 1:3.2 ft ² |
| FescoBoard | | |
| Minimum 3/4" thick | 1, 5 or 9, 12 | 1:2 ft ² |
| Structodek High Density Fiberboard Roof Insulation | | |
| Minimum ½" thick | 1, 5 or 9, 12 | 1:2 ft ² |
| DensDeck, DensDeck Prime | | |
| Minimum ½" thick | 1, 5 or 9, 12 | 1:2 ft ² |

Note: Base layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

| Top Insulation Layer (Optional) | Insulation Fasteners | <u>Fastener</u> |
|--|-----------------------------|-------------------------|
| | <u>(Table 3)</u> | Density/ft ² |
| Any of the insulations listed for Base Layer, above. | <u>N/A</u> | <u>N/A</u> |

Note: Optional top layer of insulation shall be adhered with approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.



NOA No.: 18-1127.19 Expiration Date: 05/19/23 Approval Date: 01/17/19 Page 58 of 89 Base Sheet: One ply of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet,

Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the insulated substrate with approved

mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: One ply of All Weather/Empire Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Glasbase (**Optional**) Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or one

Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or one or more plies of Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self adhered or one ply of

Flintlastic STA or Flintlastic APP Base T torch adhered.

Membrane: One ply of Flintlastic GTA or Flintlastic GTA-FR torch adhered to base/ply sheet.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design -45.0 psf (See General Limitations #9)
Pressure:



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Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2,500 psi structural concrete or concrete plank.

System Type B(2): Base layer of insulation mechanically fastened, optional top layer adhered with approved

asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer | Insulation Fasteners | Fastener |
|---|---------------------------------------|-------------------------|
| | <u>(Table 3)</u> | Density/ft ² |
| ENRGY 3, ENRGY 3 25 PSI | | |
| Minimum 1.4" thick | 1, 5 or 9, 12 | 1:2 ft ² |
| Minimum 2" thick | 1, 5 or 9, 12 | 1:3.2 ft ² |
| ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H | I-Shield, FlintBoard _H ISO | |
| Minimum 1.5" thick | 1, 5 or 9, 12 | 1:2 ft ² |
| Minimum 2" thick | 1, 5 or 9, 12 | 1:3.2 ft ² |
| FescoBoard | | |
| Minimum ³ / ₄ " thick | 1, 5 or 9, 12 | 1:2 ft ² |
| Structodek High Density Fiberboard Roof Insulation | | |
| Minimum ½" thick | 1, 5 or 9, 12 | 1:2 ft ² |
| DensDeck, DensDeck Prime | | |
| Minimum ½" thick | 1, 5 or 9, 12 | 1:2 ft ² |

Note: Base layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

| Top Insulation Layer (Optional) | Insulation Fasteners | Fastener |
|--|-----------------------------|-------------------------|
| | <u>(Table 3)</u> | Density/ft ² |
| Any of the insulations listed for Base Layer, above. | <u>N/A</u> | <u>N/A</u> |

Note: Optional top layer of insulation shall be adhered with approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet: One ply of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet,

Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet or Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the insulated substrate with approved

mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.



NOA No.: 18-1127.19 Expiration Date: 05/19/23 Approval Date: 01/17/19 Page 60 of 89 Ply Sheet: (Optional)

One ply of All Weather/Empire Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or one or more plies of Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Flintlastic Ultra Poly SMS Base Sheet torch applied or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self adhered.

Membrane:

One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base/ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or Flintlastic FR Cap 30 T torch adhered to base or ply sheet.

Surfacing: (Optional)

Any of the approved surfacing/coating options listed in Table 4.

Maximum Design

Pressure:

-45.0 psf (See General Limitations #9)



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Membrane Type: APP Modified

Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type B(3): Base layer of insulation mechanically fastened, optional top layer adhered with approved

asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer | Insulation Fasteners | Fastener |
|--|-----------------------------|-------------------------|
| | <u>(Table 3)</u> | Density/ft ² |
| ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold | , ENRGY 3, Multi-Max FA-3, | H-Shield, |
| FlintBoard _H ISO | | |
| Minimum 1.5" thick | 1, 5 or 9, 12 | 1:1.33 ft ² |

Note: Base layer shall be mechanically attached with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

| Top Insulation Layer (Optional) | <u>Insulation Fasteners</u> (<u>Table 3)</u> | <u>Fastener</u> <u>Density/ft²</u> |
|--|--|---------------------------------------|
| FescoBoard Minimum ³ / ₄ " thick | N/A | N/A |
| Structodek High Density Fiberboard Roof Insulation Minimum ½" thick | N/A | N/A |

Note: Top layer of insulation shall be adhered with approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet: One ply of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet,

Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the insulated substrate with approved

mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: One ply of All Weather/Empire Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Glasbase (**Optional**) Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or one

Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or one or more plies of Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self adhered or one ply of

Flintlastic STA or Flintlastic APP Base T torch adhered.



NOA No.: 18-1127.19 Expiration Date: 05/19/23 Approval Date: 01/17/19 Page 62 of 89 **Membrane:** One ply of Flintlastic GTA or Flintlastic GTA-FR torch adhered to base or ply sheet.

Surfacing: (Optional)

Any of the approved surfacing/coating options listed in Table 4.

Maximum Design -52.5

-52.5 psf (For FescoBoard) (See General Limitation #7)

Pressure: -67.5 psf (For Structodek High Density Fiberboard Roof Insulation) (See General Limitation

#7)



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Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2,500 psi structural concrete or concrete plank.

System Type B(4): Base layer of insulation mechanically fastened, top layer adhered with approved asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer | Insulation Fasteners | Fastener |
|---|-------------------------------|-------------------------|
| | <u>(Table 3)</u> | Density/ft ² |
| ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO C | Cold, ENRGY 3, Multi-Max FA-3 | , H-Shield, |
| FlintBoard _H ISO | | |
| Minimum 1.5" thick | 1, 5 or 9, 12 | 1:1.33 ft ² |

Note: Base layer shall be mechanically attached with fasteners and density described. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

| Top Insulation Layer | Insulation Fasteners (Table 3) | <u>Fastener</u> Density/ft ² |
|--|--------------------------------|--|
| FescoBoard Minimum ¾" thick | N/A | N/A |
| Structodek High Density Fiberboard Roof Insulation Minimum ½" thick | N/A | N/A |

Note: Top layer of insulation shall be adhered with approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet: One ply of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet,

Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the insulated substrate with approved

mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: One ply of All Weather/Empire Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Glasbase (**Optional**) Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or one

Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or one or more plies of Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Flintlastic Ultra Poly SMS Base Sheet torch applied or one ply of Black Diamond

Base Sheet or Flintlastic Ultra Glass SA self adhered.



NOA No.: 18-1127.19 Expiration Date: 05/19/23 Approval Date: 01/17/19 Page 64 of 89 Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-

P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or Flintlastic

FR Cap 30 T torch adhered to base or ply sheet.

Surfacing: (Optional)

Any of the approved surfacing/coating options listed in Table 4.

Maximum Design

-52.5 psf (For FescoBoard) (See General Limitation #7)

Pressure:

-67.5 psf (For Structodek High Density Fiberboard Roof Insulation) (See General Limitation

#7)



NOA No.: 18-1127.19 Expiration Date: 05/19/23 Approval Date: 01/17/19 Page 65 of 89 **Membrane Type:** APP Modified

Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank **System Type C(1):** All layers of insulation simultaneously fastened.

All General and System Limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer (Optional) | Insulation Fasteners (Table 3) | <u>Fastener</u> <u>Density/ft²</u> | |
|---|--------------------------------|---------------------------------------|--|
| ENRGY 3, ENRGY 3 25 PSI, ACFoam-III, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard _H ISO | | | |
| Minimum 1.5" thick | N/A | N/A | |
| Approved Perlite Listed in Table 2 Minimum ¾" thick | N/A | N/A | |
| Approved High Density Wood Fiberboard Listed in Table 2 Minimum ½" thick | N/A | N/A | |
| DensDeck, DensDeck Prime Minimum ¼" thick | N/A | N/A | |

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density.

| Top Insulation Layer | Insulation Fasteners (Table 3) | <u>Fastener</u> <u>Density/ft²</u> |
|--|-----------------------------------|---------------------------------------|
| FescoBoard | | |
| Minimum ³ / ₄ " thick | 1, 5, 9 or 12 | 1:2 ft ² |
| Structodek High Density Fiberboard Roof Insulation | | |
| Minimum ½" thick | 1, 5, 9 or 12 | 1:2 ft ² |
| DensDeck, DensDeck Prime | | |
| Minimum ½" thick | 1, 5, 9 or 12 | 1:2 ft ² |

Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density.

Base Sheet: One ply of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet,

Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the insulated substrate with approved

mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.



NOA No.: 18-1127.19 Expiration Date: 05/19/23 Approval Date: 01/17/19 Page 66 of 89 Ply Sheet: One ply of All Weather/Empire Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Glasbase (Optional) Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or one

or more plies of Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self adhered or one ply of

Flintlastic STA or Flintlastic APP Base T torch adhered.

Membrane: One ply of Flintlastic GTA or Flintlastic GTA-FR torch adhered to base or ply sheet.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design

Pressure:

-45.0 psf (See General Limitations #9)



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Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank **System Type C(2):** All layers of insulation simultaneously fastened.

All General and System Limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer (Optional) | Insulation Fasteners | Fastener | |
|--|-----------------------------|-------------------------|--|
| | <u>(Table 3)</u> | Density/ft ² | |
| ENRGY 3, ENRGY 3 25 PSI, ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard _H ISO | | | |
| Minimum 1.5" thick | N/A | N/A | |
| Approved Perlite Listed in Table 2 Minimum ¾" thick | N/A | N/A | |
| Approved High Density Wood Fiberboard Listed in Table 2 Minimum ½" thick | N/A | N/A | |
| DensDeck, DensDeck Prime Minimum ¼" thick | N/A | N/A | |

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density.

| Top Insulation Layer | <u>Insulation Fasteners</u> (Table 3) | <u>Fastener</u> <u>Density/ft²</u> |
|---|--|---------------------------------------|
| FescoBoard Minimum ¾" thick | 1, 5, 9 or 12 | 1:2 ft ² |
| Structodek High Density Fiberboard Roof Insulation Minimum ½" thick | 1, 5, 9 or 12 | 1:2 ft ² |
| DensDeck, DensDeck Prime Minimum ½" thick | 1, 5, 9 or 12 | 1:2 ft ² |

Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density.

Base Sheet: One ply of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet,

Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the insulated substrate with approved

mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.



NOA No.: 18-1127.19 Expiration Date: 05/19/23 Approval Date: 01/17/19 Page 68 of 89 Ply Sheet: (Optional)

One ply of All Weather/Empire Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or one or more plies of Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Flintlastic Ultra Poly SMS Base Sheet torch applied or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self adhered.

Membrane:

One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or Flintlastic FR Cap 30 T torch adhered to base or ply sheet.

Surfacing: (Optional)

Any of the approved surfacing/coating options listed in Table 4.

Maximum Design

Pressure:

-45.0 psf (See General Limitations #9)



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Concrete Decks, Insulated Deck Type 3I:

Min. 2500 psi structural concrete or concrete plank **Deck Description:**

System Type C(3): Insulation layer mechanically fastened, optional thermal barrier loose laid.

All General and System Limitations apply.

Min. 1/4" thick DensDeck, SECUROCK Gypsum-Fiber Roof Board loose laid on deck. **Thermal Barrier:**

(Optional)

One or more layers of any of the following insulations:

| Insulation Layer | Insulation Fasteners | Fastener |
|------------------|-----------------------------|-------------------------|
| | Table 3 | Density/ft ² |

ACFoam-III, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, H-Shield, FlintBoard ISO Minimum 1.5" thick

4 with 5; 6 with 7 1:1.45 ft²

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Base Sheet: One ply of Flintlastic Ultra Glass SA, self-adhered to the insulated substrate.

One ply of Flintlastic FR Cap 30, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic GMS, Membrane:

> Flintlastic Premium FR-P, Flintlastic Cap 30 or Flintlastic Premium GMS adhered to base sheet with approved mopping asphalt applied in full coverage at a rate of 20-25 lb/sq.

Or

One ply of Flintlastic FR Cap 30 T, Flintlastic GTA or Flintlastic GTA-FR torch adhered to

base sheet.

Surfacing: (Optional) Any of the approved surfacing/coating options listed in Table 4.

Maximum Design

-75 psf. (See General Limitation #7.)

Pressure:



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Membrane Type: APP Modified

Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank **System Type C(4):** All layers of insulation simultaneously fastened.

All General and System Limitations apply.

One or more layers of any of the following insulations:

Insulation LayerInsulation Fasteners
Table 3Fastener
Density/ft²

ENRGY 3, ENRGY 3 25 PSI, ACFoam-III, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, Multi-Max FA-3, FlintBoard ISO, H-Shield, FlintBoard_H ISO

Minimum 1.5" thick 1, 5 or 9, 12 1:1.33 ft²

Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of Black Diamond Base Sheet self-adhered to the insulated substrate.

Ply Sheet: One ply of All Weather/Empire Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Glasbase (**Optional**) Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or one

Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or one or more plies of Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self adhered or one ply of

Flintlastic Ultra Poly SMS Base Sheet or Flintlastic STA torch adhered.

Membrane: Flintlastic GTA or Flintlastic GTA-FR torch adhered to base or ply sheet.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design

Pressure: -82.5 psf (See General Limitations #7)



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Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank **System Type C(5):** All layers of insulation simultaneously fastened.

All General and System Limitations apply.

One or more layers of any of the following insulations:

 $\begin{array}{ccc} \underline{Insulation\ Layer} & \underline{Insulation\ Fasteners} & \underline{Fastener} \\ & Table\ 3 & Density/ft^2 \end{array}$

ENRGY 3, ENRGY 3 25 PSI, ACFoam-III, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, Multi-Max FA-3, FlintBoard ISO, H-Shield, FlintBoard_H ISO

Minimum 1.5" thick 1, 5 or 9, 12 1:1.33 ft²

Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: One ply of Black Diamond Base Sheet self-adhered to the insulated substrate.

Ply Sheet: One ply of All Weather/Empire Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Glasbase (**Optional**) Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or one

Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or one or more plies of Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or

one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self adhered.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium

FR-P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or Flintlastic

FR Cap 30 T torch adhered to base or ply sheet.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design

Pressure: -52.5 psf (See General Limitations #7)



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Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type D(1): All layers of insulation and base sheet simultaneously attached.

All General and System Limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer | Insulation Fasteners (Table 3) | <u>Fastener</u> <u>Density/ft²</u> |
|---|-----------------------------------|---------------------------------------|
| ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, E | NRGY 3, ENRGY 3 25 PSI | , H-Shield, |
| FlintBoard _H ISO | | |
| Minimum 1.5" thick | N/A | N/A |
| Top Insulation Layer | Insulation Fasteners | Fastener |
| | (Table 3) | Density/ft ² |
| Approved Perlite Listed in Table 2 | | |
| Minimum ³ / ₄ " thick | N/A | N/A |
| Approved High Density Wood Fiberboard Listed in Table 2 | | |
| Minimum ½" thick | N/A | N/A |
| DensDeck, DensDeck Prime | | |
| Minimum 1/4" thick | N/A | N/A |

Note: Top layer shall have preliminary attachment, prior to the installation of the base sheet, at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base sheet below for fasteners and density.

Base Sheet: One ply of All Weather/Empire Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20,

Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly SMS Base Sheet Base Sheet or Yosemite Venting Base Sheet mechanically attached as detailed in Fastening #1 below or one ply of Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly SMS Base Sheet Base Sheet

mechanically attached as detailed in Fastening #2 below.

Fastening #1: OMG #14 Roofgrip and OMG 3 in. Round Metal Plates, Dekfast DF-#14-PH3 and Dekfast

PLT-H-2-7/8 plates, Trufast #14 HD Fasteners and Trufast 3" Metal Insulation Plates or FlintFast #14 fasteners and FlintFast 3" Insulation Plates at a 4" side lap 6" o.c. and two rows

staggered in the center of the sheet, 6" o.c.

(Maximum Design Pressure -67.5 psf; See General Limitation #7)



NOA No.: 18-1127.19 Expiration Date: 05/19/23 Approval Date: 01/17/19 Page 73 of 89 **Fastening #2:** OMG #14 Roofgrip and OMG 3 in. Round Metal Plates, Dekfast DF-#14-PH3 and Dekfast

PLT-H-2-7/8 plates, Trufast #14 HD Fasteners and Trufast 3" Metal Insulation Plates or FlintFast#14 fasteners and FlintFast 3" Insulation Plates at a 4" side lap 12" o.c. and two rows

staggered in the center of the sheet, 12" o.c.

(Maximum Design Pressure -120 psf; See General Limitation #7)

Ply Sheet: One ply of All Weather/Empire Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Glasbase (**Optional**) Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or one

or more plies of Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self adhered or one ply of

Flintlastic STA or Flintlastic APP Base T torch adhered.

Membrane: One ply of Flintlastic GTA or Flintlastic GTA-FR torch adhered to base or ply sheet.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design See Fastening Options Above **Pressure:**



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Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type D(2): All layers of insulation and base sheet simultaneously attached.

All General and System Limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer | Insulation Fasteners (Table 3) | <u>Fastener</u> <u>Density/ft²</u> |
|--|-----------------------------------|--|
| ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, E FlintBoard _H ISO | ENRGY 3, ENRGY 3 25 PSI, | H-Shield, |
| Minimum 1.5" thick | N/A | N/A |
| Top Insulation Layer | Insulation Fasteners (Table 3) | <u>Fastener</u> <u>Density/ft²</u> |
| Approved Perlite Listed in Table 2 Minimum ¾" thick | N/A | N/A |
| Approved High Density Wood Fiberboard Listed in Table 2 Minimum ½" thick | N/A | N/A |
| DensDeck, DensDeck Prime Minimum ¼" thick | N/A | N/A |

Note: Top layer shall have preliminary attachment, prior to the installation of the base sheet, at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base sheet below for fasteners and density.

Base Sheet: One ply of All Weather/Empire Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20,

Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly SMS Base Sheet Base Sheet or Yosemite Venting Base Sheet mechanically attached as detailed in Fastening #1 below or one ply of Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly SMS Base Sheet Base Sheet

mechanically attached as detailed in Fastening #2 below.

Fastening #1: OMG #14 Roofgrip and OMG 3 in. Round Metal Plates, Dekfast DF-#14-PH3 and Dekfast

PLT-H-2-7/8 plates, Trufast #14 HD Fasteners and Trufast 3" Metal Insulation Plates or FlintFast #14 fasteners and FlintFast 3" Insulation Plates at a 4" side lap 6" o.c. and two rows

staggered in the center of the sheet, 6" o.c.

(Maximum Design Pressure -67.5 psf; See General Limitation #7)



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PLT-H-2-7/8 plates, Trufast #14 HD Fasteners and Trufast 3" Metal Insulation Plates or FlintFast#14 fasteners and FlintFast 3" Insulation Plates at a 4" side lap 12" o.c. and two rows

staggered in the center of the sheet, 12" o.c.

(Maximum Design Pressure -120 psf; See General Limitation #7)

Ply Sheet: (Optional)

One ply of All Weather/Empire Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or one or more plies of Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or Flintlastic Ultra Poly SMS Base Sheet torch applied or one ply of Black Diamond Base Sheet

or Flintlastic Ultra Glass SA self adhered.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-

P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or Flintlastic

FR Cap 30 T torch adhered to base or ply sheet.

Surfacing: (Optional)

Any of the approved surfacing/coating options listed in Table 4.

Maximum Design

Pressure:

See Fastening Options Above



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Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type D(3): All layers of insulation and base sheet simultaneously attached.

All General and System Limitations apply.

One or more layers of any of the following insulations:

Insulation LayerInsulation Fasteners
(Table 3)Fastener
Density/ft²

ACFoam-III, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, ENRGY 3, ENRGY 3 25 PSI, H-Shield,

FlintBoard_H ISO

Minimum 1.5" thick N/A N/A

Note: Insulation layer shall have preliminary attachment, prior to the installation of the base/anchor sheet, at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

Base Sheet: One ply of Flintlastic Ultra Poly SMS Base Sheet Base Sheet mechanically attached as detailed

in below:

Fastening #1: Trufast #15 EHD Fasteners and Trufast 2.4" Barbed Metal Seam Plates or FlintFast #15 EHD

fasteners and FlintFast 2.4" Barbed Seam Plates spaced 12" o.c. in a 4" side lap. The lap is

heat welded closed encapsulating the fastener row.

Membrane: One ply of Flintlastic GTA or Flintlastic GTA-FR torch adhered to base sheet.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design -60 psf (See General Limitation #7)

Pressure:



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Deck Type 3I: Concrete Decks, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type D(4): All layers of insulation and base sheet simultaneously attached.

All General and System Limitations apply.

One or more layers of any of the following insulations.

| Base Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
|--|--|---|
| ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, El FlintBoard _H ISO | NRGY 3, H-Shield, Multi-M | Лах FA-3, |
| Minimum 1.0" thick | N/A | N/A |
| Expanded Polystyrene (min 1.25 pcf) Listed in Table 2 | | |
| Minimum 1" thick | N/A | N/A |
| Approved Perlite Listed in Table 2 | | |
| Minimum ¾" thick | N/A | N/A |
| Approved High Density Wood Fiberboard Listed in Table 2 | | |
| Minimum ½" thick | N/A | N/A |
| DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Boar | ·d | |
| Minimum 1/4" thick | N/A | N/A |
| | | |
| Top Insulation Layer | Insulation Fasteners | <u>Fastener</u> |
| | (Table 3) | Density/ft ² |
| ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, El | (Table 3) | Density/ft ² |
| | (Table 3) | Density/ft ² |
| ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, El FlintBoard _H ISO Minimum 1.0" thick | (<u>Table 3)</u> NRGY 3, H-Shield, Multi-M | Density/ft ² Max FA-3, |
| ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, El FlintBoard _H ISO | (<u>Table 3)</u> NRGY 3, H-Shield, Multi-M | Density/ft ² Max FA-3, |
| ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, El FlintBoard _H ISO Minimum 1.0" thick Approved Expanded Polystyrene (min 1.25 pcf) Listed in Table 2 | (<u>Table 3)</u> NRGY 3, H-Shield, Multi-N N/A | Density/ft ² Max FA-3, N/A |
| ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, El FlintBoard _H ISO Minimum 1.0" thick Approved Expanded Polystyrene (min 1.25 pcf) Listed in Table 2 Minimum 1" thick | (<u>Table 3)</u> NRGY 3, H-Shield, Multi-N N/A | Density/ft ² Max FA-3, N/A |
| ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, El FlintBoard _H ISO Minimum 1.0" thick Approved Expanded Polystyrene (min 1.25 pcf) Listed in Table 2 Minimum 1" thick Approved High Density Wood Fiberboard Listed in Table 2 | (<u>Table 3)</u> NRGY 3, H-Shield, Multi-N N/A N/A | Density/ft ² Max FA-3, N/A N/A |
| ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, El FlintBoard _H ISO Minimum 1.0" thick Approved Expanded Polystyrene (min 1.25 pcf) Listed in Table 2 Minimum 1" thick Approved High Density Wood Fiberboard Listed in Table 2 Minimum ½" thick | (<u>Table 3)</u> NRGY 3, H-Shield, Multi-N N/A N/A | Density/ft ² Max FA-3, N/A N/A |
| ACFoam-II, ACFoam-III, FlintBoard ISO, FlintBoard ISO Cold, El FlintBoard _H ISO Minimum 1.0" thick Approved Expanded Polystyrene (min 1.25 pcf) Listed in Table 2 Minimum 1" thick Approved High Density Wood Fiberboard Listed in Table 2 Minimum ½" thick Approved Perlite Listed in Table 2 | (Table 3) NRGY 3, H-Shield, Multi-N N/A N/A N/A N/A N/A | Density/ft ² Max FA-3, N/A N/A N/A |



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Note: Top layer shall have preliminary attachment, prior to the installation of the base/anchor sheet, at an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

Base Sheet: One ply of Flintlastic Poly SMS Base Sheet or Flintlastic Ultra Poly SMS Base Sheet,

mechanically attached as detailed below:

OMG #14 Roofgrip and OMG 3 in. Round Metal Plates, Dekfast DF-#14-PH3 and Dekfast Fastening #1:

> PLT-H-2-7/8 plates, Trufast #14 HD Fasteners and Trufast 3" Metal Insulation Plates or FlintFast #14 fasteners and FlintFast 3" Insulation Plates at 12" o.c. in the 4" wide lap and 12"

o.c. in two equally spaced staggered rows in the field.

Ply Sheet: One ply of Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch applied to the

(Optional) base sheet.

Membrane: One ply of Flintlastic FR Cap 30 T, torch applied to base or ply sheet.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design

-112.5 psf (See General Limitation #7) **Pressure:**

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Concrete Decks, Non-Insulated Deck Type 3:

Deck Description: Min. 2500 psi structural concrete or concrete plank

Base sheet adhered to deck. **System Type F(1):**

All General and System Limitations apply.

Note: Concrete deck shall be primed with FlintPrime SA primer applied at a rate of 0.20-0.25 gal/sq or ASTM D 41 asphalt primer applied at a rate of 1 gal/sq and allowed to dry prior to application of base sheet.

Base Sheet: One ply of Flintlastic Ultra Glass SA, self-adhered to the non-insulated substrate.

Membrane: One ply of Flintlastic FR Cap 30, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic GMS,

Flintlastic Premium FR-P or Flintlastic Cap 30 adhered to base sheet with approved mopping

asphalt applied in full coverage at a rate of 20-25 lb/sq.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

-52.5 psf (With FlintPrime SA primer) (See General Limitations #9) **Maximum Design**

-135 psf (With D 41 primer) (See General Limitations #9) **Pressure:**



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Deck Type 3: Concrete Decks, Non-Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type F(2): Base sheet adhered to deck.

All General and System Limitations apply.

Note: Concrete deck shall be primed with FlintPrime SA primer applied at a rate of 0.20-0.25 gal/sq or ASTM D 41 asphalt primer applied at a rate of 1 gal/sq and allowed to dry prior to application of base sheet.

Base Sheet: One ply of Flintlastic Ultra Glass SA, self-adhered to the non-insulated substrate.

Membrane: One ply of Flintlastic FR Cap 30 T, Flintlastic GTA or Flintlastic GTA-FR torch adhered to base

sheet.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design -52.5 psf (With FlintPrime SA primer) (See General Limitations #9)

Pressure -322.5 psf (With D 41 primer) (See General Limitations #9)



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Deck Type 3: Concrete Decks, Non-Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type F(3): Base sheet adhered to deck.

All General and System Limitations apply.

Primer: Concrete deck primed with ASTM D41 asphalt primer and allowed to dry prior to

application of base sheet.

Base Sheet: One ply of Black Diamond Base Sheet, self-adhered to the non-insulated substrate.

Membrane: One layer of Flintlastic FR Cap 30, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic

Premium FR-P, Flintlastic Cap 30 or Flintlastic GMS adhered to base sheet with approved

mopping asphalt applied in full coverage at a rate of 20-25 lbs./sq.

One ply of Flintlastic FR Cap 30 T, Flintlastic GTA or Flintlastic GTA-FR torch applied to

base sheet.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design

-97.5 psf (See General Limitation #9) **Pressure:**



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Deck Type 3I: Concrete Decks, Non-Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type F(4): Base sheet heat welded to substrate.

All General and System Limitations apply.

Base Sheet: One ply of Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch adhered to the

non-insulated substrate.

Membrane: One ply of Flintlastic FR Cap 30 T, torch adhered to base sheet.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design

-225 psf (See General Limitation #9)

Pressure:



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Deck Type 3I: Concrete Decks, Non-Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type F(5): Base sheet adhered with approved asphalt.

All General and System Limitations apply.

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application

of base sheet.

Base Sheet: One ply of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet,

Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the non-insulated substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: One ply of All Weather/Empire Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Glasbase

(Optional) Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or one or more plies of Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the base sheet in a full

mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Black Diamond Base Sheet or Flintlastic Ultra Glass SA self adhered or one ply of

Flintlastic STA or Flintlastic APP Base T torch adhered.

Membrane: One ply of Flintlastic GTA or Flintlastic GTA-FR torch adhered to base or ply sheet.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design

Pressure:

-635 psf (See General Limitation #9)



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Deck Type 3I: Concrete Decks, Non-Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type F(6): Base sheet adhered with approved asphalt.

All General and System Limitations apply.

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application

of base sheet.

Base Sheet: One ply of All Weather/Empire Base Sheet, Glasbase Base Sheet, Flexiglas Base Sheet,

Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the non-insulated substrate with

approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one

ply of Black Diamond Base self-adhered to the non-insulated substrate.

Ply Sheet: One ply of All Weather/Empire Base Sheet, Flintlastic Ultra Poly SMS Base Sheet, Glasbase (**Optional**) Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or one

Base Sheet, Flexiglas Base Sheet, Flintlastic Base 20, Flintlastic Poly SMS Base Sheet or one or more plies of Flintglas Ply 4 or Flintglas Premium Ply 6 adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or one ply of Flintlastic Ultra Poly SMS Base Sheet torch applied or one ply of Black Diamond

Base Sheet or Flintlastic Ultra Glass SA self adhered.

Membrane: One ply of Flintlastic GMS, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic Premium FR-

P, Flintlastic Cap 30 or Flintlastic FR Cap 30 adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or Flintlastic

FR Cap 30 T torch adhered to base or ply sheet.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design -635 psf (See General Limitation #9)

Pressure:



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Deck Type 3: Concrete Decks, Non-Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type F(7): Base sheet adhered with approved asphalt.

All General and System Limitations apply.

Note: Concrete deck shall be primed with FlintPime primer and allowed to dry prior to application of base

sheet.

Base Sheet: One ply of Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS

Base Sheet adhered to the non-insulated substrate with FlintBond Brush at a rate of 1 - 1.5

gal/sq.

Ply Sheet: One ply of Flintlastic Base 20, Flintlastic Poly SMS Base Sheet, Flintlastic Ultra Poly SMS

(**Optional**) Base Sheet adhered to base sheet with FlintBond Brush at a rate of 1 - 1.5 gal/sq.

Membrane: One ply of Flintlastic FR Cap 30, Flintlastic FR Dual Cap, Flintlastic FR-P, Flintlastic

Premium FR-P, Flinstlastic Cap 30 or Flintlastic GMS adhered to base or ply sheet with

FlintBond Brush at a rate of 1 - 1.5 gal/sq.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design -262.5 psf. (See General Limitation #9)

Pressure:



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Deck Type 3: Concrete Decks, Non-Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type F(8): Base sheet heat welded to primed substrate

All General and System Limitations apply.

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet.

Base Sheet: One ply of Flintlastic STA or Flintlastic APP Base T, torch adhered to the non-insulated

substrate.

Ply Sheet: One ply of Flintlastic STA or Flintlastic APP Base T, torch adhered to base sheet.

(Optional)

Membrane: One ply of Flintlastic GTA or Flintlastic GTA-FR, torch adhered to base or ply sheet.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

Maximum Design

Pressure:

-345 psf (See General Limitation #9)



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Deck Type 3: Concrete Decks, Non-Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type F(9): Base sheet heat welded to primed substrate.

All General and System Limitations apply.

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet.

Base Sheet: One or more plies of Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch

applied to the non-insulated substrate.

Ply Sheet: One ply of Flintlastic Base 20 T or Flintlastic Ultra Poly SMS Base Sheet, torch applied to

(**Optional**) base sheet.

Membrane: One ply of Flintlastic FR Cap 30 T, torch applied to base or ply sheet.

Surfacing: Any of the approved surfacing/coating options listed in Table 4.

(Optional)

Maximum Design -542.5 p

Pressure:

-542.5 psf (See General Limitation #9)



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CONCRETE DECK SYSTEM LIMITATIONS:

 If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine equivalent or enhanced fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117, calculations shall be signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant.

GENERAL LIMITATIONS:

- 1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
- 2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
- 3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
- 4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq.
 - Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.
- 5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
- 6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
- 7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant (When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)
- 8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
- 9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). (When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)
- 10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE



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