

Tremco, Inc. 3735 Green Road Beachwood, OH 44122

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: TremPly KEE Roof Systems over Recover 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 renews NOA# 18-0809.08 and consists of pages 1 through 60. The submitted documentation was reviewed by Alex Tigera.

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ROOFING SYSTEM APPROVAL

| Category: | Roofing |
|-------------------------|------------------------|
| Sub-Category: | Single Ply |
| <u>Material:</u> | KEE |
| Deck Type: | Recover |
| Maximum Design Pressure | See Specific deck type |

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

| | | TABLE 1 | |
|--|-------------------------------------|------------------------------|---|
| <u>Product</u> | Dimensions | Test <u>Specification</u> | Product <u>Description</u> |
| TremPly KEE | Various | ASTM D 6754 | KEE, polyester reinforced, single ply membrane |
| TremPly KEE FB | Various | ASTM D 6754 | KEE, fleece-backed, polyester reinforced, single ply membrane |
| TremPly KEE LV Bonding Adhesive | 5 gal. pails | Proprietary | Solvent based bonding adhesive |
| TremPly KEE FB Bonding Adhesive | 5 gal. pails | Proprietary | One side "substrate only" fleece back solvent based adhesive |
| Tremco Low Rise Foam Insulation Adhesive | 5 gal. pails | Proprietary | Elastomeric, one step foamable adhesive |
| Tremco Low Rise Foam Insulation Adhesive (BG) | 5 gal. or 50 gal. pails | Proprietary | Two-component, VOC free, polyurethane adhesive |
| Tremco LR Adhesive | 5 gal. or 50 gal. pails | Proprietary | Two-component, VOC free, polyurethane adhesive |
| TremPly KEE Walkway & Protection Materials | 5/32" x 36" x 40' ¼" x 24" x 48" | N/A | Vinyl walk way vinyl protection pad |
| TremPly KEE FB WB II Bonding Adhesive | 5 gal. pails | Proprietary | One side "substrate only" fleece backed water based adhesive |

APPROVED INSULATIONS:

MIAMI:DADECOUNTY APPROVED

TABLE 2

| Product Name | Product Description | <u>Manufacturer</u> (With Current NOA) |
|------------------|--|---|
| ACFoam Composite | Polyisocyanurate insulation with perlite facer | Atlas Roofing Corporation |
| ACFoam-II | Polyisocyanurate insulation | Atlas Roofing Corporation |
| ACFoam-III | Polyisocyanurate insulation | Atlas Roofing Corporation |
| DensDeck | Silicon treated gypsum | Georgia-Pacific Gypsum LLC |
| DensDeck Prime | Silicon treated gypsum | Georgia-Pacific Gypsum LLC |
| H-Shield | Polyisocyanurate insulation | Hunter Panels, a div. of Carlisle Const. Materials, LLC. |
| H-Shield NB | Polyisocyanurate insulation | Hunter Panels, a div. of Carlisle Const. Materials, LLC |

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APPROVED INSULATIONS:

TABLE 2

Product Description

| Product Name | <u>Product Description</u> | <u>Manufacturer</u> (With Current NOA) |
|-------------------------------------|---|---|
| H-Shield WF | Polyisocyanurate insulation | Hunter Panels, a div. of Carlisle Const. Materials, LLC. |
| H-Shield CG | Polyisocyanurate insulation | Hunter Panels, a div. of Carlisle Const. Materials, LLC. |
| H-Shield HD | Polyisocyanurate insulation | Hunter Panels, a div. of Carlisle Const. Materials, LLC |
| ENRGY 3 | Polyisocyanurate insulation | Johns Manville Corporation |
| ENRGY 3 25 PSI | Polyisocyanurate insulation | Johns Manville Corporation |
| ENRGY 3 AGF 25 PSI | Polyisocyanurate insulation | Johns Manville Corporation |
| ENRGY 3 CGF 25 PSI | Polyisocyanurate insulation | Johns Manville Corporation |
| R-Panel | Polyisocyanurate insulation | Johns Manville Corporation |
| ValuTherm CGF | Polyisocyanurate insulation | Johns Manville Corporation |
| ValuTherm AGF 25 PSI | Polyisocyanurate insulation | Johns Manville Corporation |
| ValuTherm CGF 25 PSI | Polyisocyanurate insulation | Johns Manville Corporation |
| Ultra-Max | Polyisocyanurate foam insulation | Rmax Operating, LLC |
| Multi-Max FA-3 | Polyisocyanurate foam insulation | Rmax Operating, LLC |
| Thermaroof Composite-3 | Polyisocyanurate/perlite composite insulation | Rmax Operating, LLC |
| Tapered Thermaroof-3 | Polyisocyanurate/perlite composite insulation | Rmax Operating, LLC |
| SECUROCK Gypsum-Fiber Roof Board | Gypsum coverboard | USG Corporation |
| SECUROCK Glass-Mat Roof Board | Gypsum Coverboard | USG Corporation |

APPROVED FASTENERS / ADHESIVES:

MIAMI:DADECOUNTY APPROVED

| TABLE 3 | | | | |
|---------------------------|---------------------------------------|--|-------------------|---|
| Fastener <u>Number</u> | Product <u>Name</u> | Product <u>Description</u> | <u>Dimensions</u> | Manufacturer <u>(With Current NOA)</u> |
| 1. | Dekfast PLT-O-2-1/2-12B | Galvalume AZ50 stress plate | 1.5" x 2.5" | SFS Group USA, Inc. |
| 2. | Dekfast PLT-R-2-3/8-6B | Barbed, Galvalume AZ50 stress plate | 2-3/8" Dia. | SFS Group USA, Inc. |
| 3. | isofast PLT-R-2-3/8-BL | Galvalume AZ50 stress plate, #15 belted fastener system | 2-3/8" Dia. | SFS Group USA, Inc. |
| 4. | Dekfast DF-#14-PH3 | Insulation and membrane fasteners | Various | SFS Group USA, Inc. |
| 5. | Dekfast PLT-H-2-7/8 | Galvalume AZ50 steel plate | 2-7/8" x 3-¼" | SFS Group USA, Inc. |
| 6. | Trufast 3" Metal Insulation Plates | Galvalume AZ50 steel plate | 3" round | Altenloh, Brinck & Co. U.S., Inc. |

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APPROVED FASTENERS / ADHESIVES:

TABLE 3

| Fastener <u>Number</u> | Product <u>Name</u> | Product <u>Description</u> | Dimensions | Manufacturer <u>(With Current NOA)</u> |
|---------------------------|---|--|---|---|
| 7. | Dekfast DF-#15-PH3 | Carbon steel fastener for concrete, steel and wood decks | Various | SFS Group USA, Inc. |
| 8. | #14 Roofgrip | Membrane and Insulation fasteners | Various | OMG, Inc. |
| 9. | Trufast #15 EHD Fastener | Carbon steel fastener used in concrete, steel and wood decks | Various | Altenloh, Brinck & Co. U.S., Inc. |
| 10. | Trufast 2-3/4" Barbed Metal Seam Plate (EHD) | Galvalume steel stress plate for use with Trufast fasteners. | 2.75" round | Altenloh, Brinck & Co. U.S., Inc. |
| 11. | TremPly Plus Stress Plate | Oval stress plate | 1 ¹ /2" x 2 ³ /4" | SFS Group USA, Inc. |
| 12. | Polymer GypTec | Fastener for cementitious and gypsum decks | Various | OMG, Inc. |
| 13. | Polymer GypTec Insulation Plate | Round Galvalume AZ55 plate | 3" round | OMG, Inc |
| 14. | OMG XHD | Self-drilling fastener for use in steel or wood decks | Various | OMG, Inc. |
| 15. | ICP Adhesive CR-20 | Polyurethane adhesive | | ICP Adhesives and Sealants, Inc. |
| 16. | Insta Stik Quik Set Insulation Adhesive | A single component urethane foam adhesive | | DuPont de Nemours, Inc. |
| 17. | Millennium One Step Foamable Insulation Adhesive | A two component, low rise, polyurethane foam adhesive | | H.B. Fuller Company |
| 18. | Millennium PG-1 Low Viscosity Insulation Adhesive | A two component, low rise, polyurethane foam adhesive | | H.B. Fuller Company |
| 19. | OMG OlyBond Adhesive | A two-component polyurethane foam adhesive | | OMG, Inc. |

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EVIDENCE SUBMITTED:

| Test Agency | Name | <u>Report</u> | Date |
|--|----------------------|-------------------|----------|
| Factory Mutual Research Corp | FM 4470 | 1Z2A5.AM | 01/12/96 |
| | FM 4470 | 1Z3A8.AM | 08/13/97 |
| | FM 4470 | 0D2A8.AM | 01/12/98 |
| | FM 4470 | 4D5A4.AM | 10/05/99 |
| | FM 4470 | 3003251 | 10/15/99 |
| | FM 4470 | 3006872 | 06/13/00 |
| | FM 4470 | 3009071 | 01/03/02 |
| | FM 4470 | 3012321 | 07/29/02 |
| | FM 4470 | 3014050 | 07/08/03 |
| | FM 4470 | 3013068 | 09/23/03 |
| | FM 4470 | 3028651 | 04/17/08 |
| | FM 4470 | 3032172 | 06/12/09 |
| | FM 4470 | 3033396 | 09/04/09 |
| | FM 4470 | 3037770 | 10/22/09 |
| | FM 4470 | 3037168 | 04/12/10 |
| | FM 4470 | 3044075 | 04/06/12 |
| | FM 4470 | 3046131 | 10/17/12 |
| | FM 4470 | 3048494 | 11/19/13 |
| | FM 4470 | 3051608 | 10/23/16 |
| Trinity ERD | TAS 114 | 02767.09.05-S1 | 09/27/05 |
| | TAS 114 | 02767.09.05-82 | 09/27/05 |
| | TAS 117 & ASTM D6862 | C850SC.11.07-R1 | 08/07/09 |
| | TAS 114 | 4006.07.97-1-R1 | 07/15/10 |
| | TAS 114 | 4015.10.96-1-R1 | 07/20/10 |
| | FM 4470 / TAS 114 | \$32410.09.10 | 09/21/10 |
| | FM 4470 / TAS 114 | S6220.03.07-R1 | 05/13/11 |
| | ASTM D 6754 | S47410.12.14 | 12/15/14 |
| | FM 4474 / TAS 114 | S43840.11.15 | 11/30/15 |
| | FM 4474 / TAS 114 | SMN-SC10155.01.16 | 01/27/16 |
| Underwriters Laboratories | UL 790 | 98NK12810 | 08/11/98 |
| | UL 790 | 98NK17212 | 08/21/98 |
| | UL 790 | 12CA39420 | 01/08/13 |
| PRI Construction Materials Technologies LLC | ASTM D 3747 | HGC-142-02-03-R1 | 06/16/16 |

DECK STRESS ANALYSIS CALCULATIONS/REPORTS:

| Engineer/Agency | <u>Identifier</u> | Assemblies | Date |
|-------------------------------|----------------------------|---|-------------|
| Robert Nieminen, P.E. | Signed/Sealed Calculations | D(8), D(10), E(6), E(7) | 12/11/15 |
| Factory Mutual Research Corp. | RoofNav Listings | C(4), C(5), C(6), D(1) through D(7), E(3), E(4), E(5) | 11/23/15 |

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APPROVED ASSEMBLIES

| Membrane Type: | Single Ply, KEE |
|--------------------------|---|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | 2500 psi. structural concrete or plank |
| System Type A(1): | One or more layers of insulation adhered with approved adhesive, membrane adhered |

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier:Cold-applied base and/or ply sheet approved for use with the roof cover followed by an(Optional)additional approved cold-applied sheet.

One or more layers of the following insulations:

| Base Insulation Layer | <u>Insulation Fasteners</u> (Table 3) | Fastener Density/ft ² |
|--------------------------------|--|----------------------------------|
| ACFoam-II, Multi-Max FA-3, H-S | hield, ENRGY 3 | NT/A |
| Minimum: 1.5" thick | N/A | N/A |
| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
| ACFoam-II, Multi-Max FA-3, H-S | | |
| Minimum: 1.5 " thick | N/A | N/A |
| ACFoam-II, Multi-Max FA-3, H-S | hield, ENRGY 3 | |
| Tapered | N/A | N/A |

Note: All insulation shall be adhered to the substrate or vapor barrier in ICP Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. 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.

| Membrane: | TremPly KEE roof cover adhered with TremPly KEE LV Bonding Adhesive applied at a rate of 1 gal/sq. to the back side of the membrane and to the substrate. The outside 1.5" of the lap is heat welded. |
|----------------|--|
| | Or |
| | TremPly KEE FB roof cover adhered with TremPly KEE FB Bonding Adhesive at 1 gal/sqor with TremPly KEE FB WB II Bonding Adhesive at 100 ft ² /gal. The outside 1.5" of the lap is heat welded. |
| Maximum Design | 1 |
| Pressure: | -67.5 psf (See General Limitation #9.) |



| Membrane Type: | Single Ply, KEE |
|--------------------------|---|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | 2500 psi. structural concrete or plank |
| System Type A(2): | One or more layers of insulation adhered with approved adhesive, membrane adhered |

Vapor Retarder:
(Optional)Cold-applied base and/or ply sheet approved for use with the roof cover followed by an
additional approved cold-applied sheet.

One or more layers of the following insulations:

| Base Insulation Layer (Optional) | <u>Insulation Fasteners</u> (Table 3) | Fastener Density/ft ² |
|---|--|----------------------------------|
| ACFoam-II, Multi-Max FA-3, H-Shield, E | NRGY 3 | |
| Minimum: 1.5" thick | N/A | N/A |
| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
| DensDeck Prime, SECUROCK Gypsum-F | iber Roof Board | |
| Minimum: 0.25 " thick | N/A | N/A |

Note: All insulation shall be adhered to the substrate or vapor barrier in ICP Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. 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.

| Membrane: | TremPly KEE roof cover adhered with TremPly KEE LV Bonding Adhesive applied at a rate of 1 gal/sq. to the back side of the membrane and to the substrate. The outside 1.5" of the lap is heat welded. |
|-----------------------------|---|
| | Or |
| W · D · | TremPly KEE FB roof cover adhered with hot asphalt at 25 lbs/sq. or TremPly KEE FB WB II Bonding Adhesive at 100 ft ² /gal. The outside 1.5" of the lap is heat welded. |
| Maximum Design Pressure: | -67.5 psf (See General Limitation #9.) |



| Membrane Type: | Single Ply, KEE |
|--------------------------|---|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | 2500 psi. structural concrete or plank |
| System Type A(3): | One or more layers of insulation adhered with approved adhesive, membrane adhered |

| Vapor Barrier: (Optional) | Hot-applied, Self-Adhering or Torch-applied vapor barrier as indicated below: |
|------------------------------|---|
| | Hot asphalt-applied base and/or ply sheets approved for use with roof cover followed by an additional approved asphalt-applied sheet. |
| | Or |
| | Self-adhered base membrane approved for use with roof cover followed by an additional approved self-adhered sheet. |
| | Or |
| | Hot asphalt-applied base and/or ply sheets or optional torch-applied base membrane approved for use with roof cover followed by an additional approved torch-applied sheet. |

One or more layers of the following insulations:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
|------------------------------|-----------------------------------|----------------------------------|
| ACFoam-II, Multi-Max FA-3, | H-Shield, ENRGY 3 | |
| Minimum: 1.5" thick | N/A | N/A |
| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
| ACFoam-II, Multi-Max FA-3, | H-Shield, ENRGY 3 | |
| Tapered | N/A | N/A |

Note: All insulation shall be adhered to the substrate or vapor barrier in ICP Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. 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.

Membrane:TremPly KEE FB roof cover adhered with TremPly KEE FB WB II Bonding Adhesive at 100
ft²/gal. The outside 1.5" of the lap is heat welded.Maximum Design Pressure: -67.5 psf (See General Limitation #9.)



Or

TremPly KEE FB roof cover adhered with TremPly KEE FB Bonding Adhesive at 1 gal/sq. or TremPly KEE FB WB II Bonding Adhesive at 100 ft²/gal. The outside 1.5" of the lap is heat welded.

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

Or

TremPly KEE roof cover adhered with TremPly KEE LV Bonding Adhesive applied at a rate of 1 gal/sq. to the back side of the membrane and to the substrate. The outside 1.5" of the lap is heat welded.

Maximum Design Pressure: -117 psf (See General Limitation #9.)

Maximum Design

Pressure:

See Membrane Options Above.



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| Membrane Type: | Single Ply, KEE |
|--------------------------|---|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | Min. 272 psi Mearlcrete, or min 240 psi Elastizell LWIC cast over structural concrete |
| System Type A(4): | One or more layers of insulation adhered with approved adhesive, membrane adhered |

One or more layers of the following insulations:

| <u>Base Insulation</u> Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---------------------------------|-----------------------------------|--|
| ACFoam-II, Multi-Max F | A-3, H-Shield, ENRGY 3 | |
| Minimum: 1.5" | N/A | N/A |
| thick | | |
| Top Insulation | Insulation Fasteners | Fastener Density/ft ² |
| Layer | <u>(Table 3)</u> | |
| ACFoam-II, Multi-Max FA | A-3, H-Shield, ENRGY 3 | |
| Tapered | N/A | N/A |

Note: All insulation shall be adhered to the substrate in ICP Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. 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.

Membrane:

TremPly KEE FB roof cover adhered with TremPly KEE FB WB II Bonding Adhesive at 100 ft²/gal. The outside 1.5" of the lap is heat welded. *Maximum Design Pressure: -67.5 psf (See General Limitation #9.)*

Or

TremPly KEE FB roof cover adhered with TremPly KEE FB Bonding Adhesive at 1 gal/sq. or TremPly KEE FB WB II Bonding Adhesive at 100 ft²/gal. The outside 1.5" of the lap is heat welded.

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

Or

TremPly KEE roof cover adhered with TremPly KEE LV Bonding Adhesive applied at a rate of 1 gal/sq. to the back side of the membrane and to the substrate. The outside 1.5" of the lap is heat welded.

Maximum Design Pressure: -117 psf (See General Limitation #9.)

Maximum Design Pressure:

See Membrane Options Above.



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| Membrane Type: | Single Ply, KEE |
|--------------------------|---|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | 2500 psi. structural concrete or plank |
| System Type A(5): | One or more layers of insulation adhered with approved adhesive, membrane adhered |

| Vapor Barrier: (Optional) | Hot-applied, Self-Adhering or Torch-applied vapor barrier as indicated below: |
|------------------------------|--|
| | Hot asphalt-applied base and/or ply sheets approved for use with roof cover followed by an additional approved asphalt-applied sheet. |
| | Self-adhered base membrane approved for use with roof cover followed by an additional approved self-adhered sheet. |
| | Hot asphalt-applied base and/or ply sheets or optional torch-applied base membrane approved for use with roof cover followed by an additional torch-applied sheet. |

One or more layers of the following insulations:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|-----------------------------------|--|
| ACFoam-II, Multi-Max FA-3, H-S | hield, ENRGY 3 | |
| Minimum: 1.5" thick | N/A | N/A |
| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
| ACFoam II, Multi-Max FA-3, H-Shield, ENRGY 3 | | |
| Minimum: 1.5 " thick | N/A | N/A |

Note: All insulation shall be adhered to the substrate or vapor barrier in ICP Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. 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.



| Membrane: | TremPly KEE FB roof cover adhered with TremPly KEE FB WB II Bonding Adhesive at 100 ft ² /gal. The outside 1.5" of the lap is heat welded. <i>Maximum Design Pressure: -67.5 psf (See General Limitation #9.)</i> |
|-----------------------------|--|
| | Or |
| | TremPly KEE FB roof cover adhered with TremPly KEE FB Bonding Adhesive at 1 gal/sq. or TremPly KEE FB WB II Bonding Adhesive at 100 ft ² /gal. The outside 1.5" of the lap is heat welded. |
| | Maximum Design Pressure: -105 psf (See General Limitation #9.) |
| | Or |
| | TremPly KEE roof cover adhered with TremPly KEE LV Bonding Adhesive applied at a rate of 1 gal/sq. to the back side of the membrane and to the substrate. The outside 1.5" of the lap is heat welded. |
| | Maximum Design Pressure: -169 psf (with torch-applied vapor barrier) (See General Limitation #9.) Maximum Design Pressure: -210 psf (with hot-applied, self-adhered or no vapor barrier) (See General Limitation #9.) |
| Maximum Design Pressure: | See Membrane Options Above. |



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| Membrane Type: | Single Ply, KEE |
|--------------------------|---|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | Min. 272 psi Mearlcrete, or min 240 psi Elastizell LWIC cast over structural concrete |
| System Type A(6): | One or more layers of insulation adhered with approved adhesive, membrane adhered |

One or more layers of the following insulations:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² | |
|--|-----------------------------------|----------------------------------|--|
| | <u></u> | | |
| ACFoam-II, Multi-Max FA-3, H | I-Shield, ENKGY 3 | | |
| Minimum: 1.5" thick | N/A | N/A | |
| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² | |
| | <u>(10010 0)</u> | | |
| ACFoam-II, Multi-Max FA-3, H-Shield, ENRGY 3 | | | |
| Minimum: 1.5 " thick | N/A | N/A | |

Note: All insulation shall be adhered to the substrate in ICP Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. 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.

Membrane:

TremPly KEE FB roof cover adhered with TremPly KEE FB WB II Bonding Adhesive at 100 ft²/gal. The outside 1.5" of the lap is heat welded. *Maximum Design Pressure: -67.5 psf (See General Limitation #9.)*

Or

TremPly KEE FB roof cover adhered with TremPly KEE FB Bonding Adhesive at 1 gal/sq. or TremPly KEE FB WB II Bonding Adhesive at 100 ft²/gal. The outside 1.5" of the lap is heat welded.

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

Or

TremPly KEE roof cover adhered with TremPly KEE LV Bonding Adhesive applied at a rate of 1 gal/sq. to the back side of the membrane and to the substrate. The outside 1.5" of the lap is heat welded.

Maximum Design Pressure: -180 psf for Elastizell (See General Limitation #9.) Maximum Design Pressure: -210 psf for Mearlcrete (See General Limitation #9.)

Maximum Design Pressure:

See Membrane Options Above.



| Membrane Type: | Single Ply, KEE |
|--------------------------|---|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | 2500 psi. structural concrete or plank |
| System Type A(7): | One or more layers of insulation adhered with approved <u>adhesive</u> , membrane adhered |

Vapor Barrier: Any UL or FM approved vapor barrier may be installed over the substrate. **(Optional)**

One or more layers of the following insulations:

| Base Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² | |
|---|-----------------------------------|--|--|
| ACFoam-II, ACFoam-III, Multi-Max FA | A-3, H-Shield | | |
| Minimum 1.5" thick | N/A | N/A | |
| DensDeck, DensDeck Prime | | | |
| Minimum 0.5" thick | N/A | N/A | |
| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² | |
| ACFoam-II, ACFoam-III, Multi-Max FA-3, H-Shield | | | |
| Tapered | N/A | N/A | |

Note: All insulation shall be adhered to the substrate or vapor barrier in 3-3.5" wide beads spaced 12" o.c. of ICP Adhesive CR-20. 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.

Membrane: TremPly KEE roof cover adhered to the insulation with TremPly KEE LV Bonding Adhesive applied at an application rate of 1 gal./sq. to the backside of the membrane and to the substrate. The outside 1.5" of the lap is heat welded.

Or

TremPly KEE FB roof cover adhered to the insulation with approved asphalt at 20-25 lbs./sq., or TremPly KEE FB Bonding Adhesive at 1 gal. per 100 ft² or TremPly KEE FB WB II Bonding Adhesive at 10 ft²/gal. The outside 1.5" of the lap is heat welded.

Maximum Design Pressure:

-90 psf (See General Limitation #9.)



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| Membrane Type: | Single Ply, KEE |
|--------------------------|---|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | 2500 psi. structural concrete or plank |
| System Type A(8): | One or more layers of insulation adhered with approved <u>adhesive</u> , membrane adhered |

Vapor Barrier:Any UL or FM approved vapor barrier may be installed over the substrate or the base layer(Optional)of insulation.

One or more layers of the following insulations:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
|--|---|----------------------------------|
| ACFoam-II, Ultra-Max, ENRGY 3, H-Shield Minimum 1.5" thick | N/A | N/A |
| Top Insulation Layer (Optional) | <u>Insulation Fasteners</u> <u>(Table 3)</u> | Fastener Density/ft ² |
| DensDeck, DensDeck Prime, SECUROCK Gyps Minimum 0.25" thick | um-Fiber Roof Board N/A | N/A |

Note: All insulation shall be adhered to the substrate in ¹/₂" to ³/₄" wide beads 12" o.c. of Tremco Low Rise Foam Insulation Adhesive, Tremco Low Rise Foam Insulation Adhesive (BG), Tremco LR Adhesive, Millennium One Step Foamable Adhesive or Millennium PG-1 Low Viscosity Insulation Adhesive. 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.

| Membrane: | TremPly KEE roof cover adhered to the insulation with TremPly KEE LV Bonding Adhesive applied at an application rate of 1 gal./sq. to the backside of the membrane and to the substrate. The outside 1.5" of the lap is heat welded. | |
|----------------|---|--|
| | Or | |
| | TremPly KEE FB roof cover adhered to the insulation with approved asphalt at 20-25 lbs./sq., or TremPly KEE FB Bonding Adhesive at 1 gal. per 100 ft ² or TremPly KEE FB WB II Bonding Adhesive at 100 ft ² /gal. The outside 1.5" of the lap is heat welded. | |
| Maximum Design | | |
| Pressure: | -157.5 psf (See General Limitation #9.) | |



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| Membrane Type: | Single Ply, KEE |
|--------------------------|---|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | 2500 psi. structural concrete or plank |
| System Type A(9): | One or more layers of insulation adhered with approved adhesive, membrane adhered |

Vapor Barrier:Hot asphalt-applied base and/or ply sheets or optional torch-applied base membrane approved(Optional)for use with roof cover followed by an additional approved torch-applied sheet.

One or more layers of the following insulations:

| Base Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|-----------------------------------|--|
| ACFoam-II, Multi-Max FA-3, H-Shield, ENRO | GY 3 | |
| Minimum: 1.5" thick | N/A | N/A |
| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
| DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board | | |
| Minimum: 0.25" thick | N/A | N/A |

Note: All insulation shall be adhered to the substrate or vapor barrier in ICP Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. 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.

| Membrane: | TremPly KEE roof cover adhered with TremPly KEE LV Bonding Adhesive applied at a rate of 1 gal/sq. to the back side of the membrane and to the substrate. The outside 1.5" of the lap is heat welded. |
|-----------------------------|---|
| | Or TremPly KEE FB roof cover adhered with hot asphalt at 25 lbs/sq. or TremPly KEE FB WB |
| | II Bonding Adhesive at 100ft ² /gal. The outside 1.5" of the lap is heat welded. |
| Maximum Design Pressure: | -169 psf (See General Limitation #9.) |



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| Membrane Type: | Single Ply, KEE |
|--------------------------|---|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | 2500 psi. structural concrete or plank |
| System Type A(10): | One or more layers of insulation adhered with approved adhesive, membrane adhered |

| Vapor Barrier: (Optional) | Hot-applied or Self-Adhering vapor barrier as indicated below: | | |
|------------------------------|---|--|--|
| () | Hot asphalt-applied base and/or ply sheets approved for use with roof cover followed by an additional approved asphalt-applied sheet. | | |
| | Self adhered base membrane approved for use with roof cover followed by an additional | | |

Self-adhered base membrane approved for use with roof cover followed by an additional approved self-adhered sheet.

One or more layers of the following insulations:

| Insulation Layer | Insulation Fasteners | <u>Fastener Density/ft²</u> | |
|--|-----------------------------|--|--|
| | <u>(Table 3)</u> | | |
| DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board | | | |
| Minimum: 0.25 " thick | N/A | N/A | |

Note: All insulation shall be adhered to the substrate or vapor barrier in ICP Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. 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.

| Membrane: | TremPly KEE roof cover adhered with TremPly KEE LV Bonding Adhesive applied at a rate of 1 gal/sq. to the back side of the membrane and to the substrate. The outside 1.5" of the lap is heat welded. |
|-----------------------------|---|
| | Or |
| | TremPly KEE FB roof cover adhered with hot asphalt at 25 lbs/sq. or TremPly KEE FB WB II Bonding Adhesive at 100 ft ² /gal. The outside 1.5" of the lap is heat welded. |
| Maximum Design Pressure: | -180 psf (See General Limitation #9.) |

MIAMI-DADE COUNTY

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| Membrane Type: | Single Ply, KEE |
|--------------------------|---|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | Min. 272 psi Mearlcrete, or min 240 psi Elastizell LWIC cast over structural concrete |
| System Type A(11): | One or more layers of insulation adhered with approved adhesive, membrane adhered |

One or more layers of the following insulations:

| Base Insulation Layer | <u>Insulation Fasteners</u> (Table 3) | Fastener Density/ft² |
|---|--|--|
| ACFoam-II, Multi-Max FA-3, H-Shi Minimum: 1.5" thick | <u></u> | N/A |
| Top Insulation Layer | <u>Insulation Fasteners</u> (Table 3) | Fastener Density/ft ² |
| DensDeck Prime, SECUROCK Gyps Minimum: 0.25 " thick | <u></u> | N/A |

Note: All insulation shall be adhered to the substrate in ICP Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. 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.

 Membrane:
 TremPly KEE roof cover adhered with TremPly KEE LV Bonding Adhesive applied at a rate of 1 gal/sq. to the back side of the membrane and to the substrate. The outside 1.5" of the lap is heat welded.

 Or
 TremPly KEE FB roof cover adhered with hot asphalt at 25 lbs/sq. or TremPly KEE FB WB II Bonding Adhesive at 100 ft²/gal. The outside 1.5" of the lap is heat welded.

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



| Membrane Type: | Single Ply, KEE |
|--------------------------|---|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | Min. 272 psi Mearlcrete, or min 240 psi Elastizell LWIC cast over structural concrete |
| System Type A(12): | One or more layers of insulation adhered with approved adhesive, membrane adhered |

One or more layers of the following insulations:

| Base Insulation Layer (Optional) | <u>Insulation Fasteners</u> (Table 3) | <u>Fastener Density/ft²</u> |
|--|--|--|
| ACFoam-II, Multi-Max FA-3, H-Shield, ENRG | Y 3 | |
| Minimum: 1.5" thick | N/A | N/A |
| Top Insulation Layer | Insulation Fasteners | Fastener Density/ft ² |
| | <u>(Table 3)</u> | |
| DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board | | |
| Minimum: 0.25 " thick | N/A | N/A |

Note: All insulation shall be adhered to the substrate in ICP Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. 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.

| Membrane: | TremPly KEE roof cover adhered with TremPly KEE LV Bonding Adhesive applied at a rate of 1 gal/sq. to the back side of the membrane and to the substrate. The outside 1.5" of the lap is heat welded. Or TremPly KEE FB roof cover adhered with hot asphalt at 25 lbs/sq. or TremPly KEE FB WB II Bonding Adhesive at 100 ft ² /gal. The outside 1.5" of the lap is heat welded. |
|----------------|--|
| Maximum Design | -180 psf (for Elastizell) (See General Limitation #9.) |
| Pressure: | -240.0 psf (for Mearlcrete) (See General Limitation #9.) |



| Membrane Type: | Single Ply, KEE |
|--------------------------|---|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | Min. 2500 psi structural concrete or concrete plank |
| System Type A(13): | All layers of insulation adhered subsequently membrane adhered. |

| Vapor Barrier: | Any approved asphaltic vapor barrier, or existing BUR. |
|----------------|--|
| (Optional) | |

One or more layers of the following:

| Insulation Layer | <u>Insulation Fasteners</u> (Table 3) | Fastener Density/ft² |
|--|--|--|
| H-Shield, ENRGY 3, ACFoam II, Multi- Minimum 1.0" thick | Max FA-3 N/A | N/A |

Note: Substrate 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 substrate in full mopping of 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.

Membrane: TremPly KEE roof cover adhered with TremPly KEE LV Bonding Adhesive applied at a rate of 1 gal/sq. to the back side of the membrane and to the substrate. The outside 1.5" of the lap is heat welded.

Maximum Design -210.0 psf (See General Limitation #9.) Pressures:

MIAMI-DADE COUNTY

| Membrane Type: | Single Ply, KEE |
|--------------------|---|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | 2500 psi. structural concrete or plank / Min. 272 psi Mearlcrete, or min 240 psi Elastizell LWIC /cementitious wood fiber/ min. 19/32" plywood or wood plank attached to structural supports spaced at a maximum of 24-in. o.c. with 8d ring shank nails at 6" o.c. / 18-22 ga. 33 ksi steel. |
| System Type A(14): | One or more layers of insulation adhered with approved asphalt, membrane adhered. |

| Vapor Barrier: | Asphaltic Vapor Barrier. |
|----------------|--------------------------|
| (Optional) | |

One or more layers of the following insulations:

| Base Insulation Layer | <u>Insulation Fasteners</u> <u>(Table 3)</u> | Fastener Density/ft² |
|--|---|--|
| ACFoam-II, Multi-Max FA-3, H-Shield, l | ENRGY 3 | |
| Minimum 1.5" thick | N/A | N/A |
| <u>Top Insulation Layer (Optional)</u> | <u>Insulation Fasteners</u> (Table 3) | Fastener Density/ft² |
| ACFoam-II, Multi-Max FA-3, H-Shield, ENRGY 3 | | |
| Minimum 1.5" thick | N/A | N/A |
| DensDeck Prime Minimum 0.25" thick | N/A | N/A |

Note: Existing roof 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 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 used as a top layer shall be placed with the polyisocyanurate side facing down.



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| Membrane: | TremPly KEE roof cover adhered to the insulation with TremPly KEE LV Bonding Adhesive applied at an application rate of 1 gal./sq. to the backside of the membrane and to the substrate. The outside 1.5" of the lap is heat welded. |
|----------------|---|
| | Or |
| | TremPly KEE FB roof cover adhered to the insulation with approved asphalt at 20-25 lbs./sq., or TremPly KEE FB Bonding Adhesive at 1 gal. per 100 ft ² or TremPly KEE FB WB II Bonding Adhesive at 100 ft ² /gal. The outside 1.5" of the lap is heat welded. |
| Maximum Design | |
| Pressure: | -240 psf; (See General Limitation #9.) |



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| Membrane Type: | Single Ply, KEE |
|--------------------------|---|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | 2500 psi. structural concrete or plank |
| System Type A(15): | One or more layers of insulation adhered with approved adhesive, membrane adhered |

Vapor Barrier:Any UL or FM approved vapor barrier may be installed over the substrate.(Optional)

One or more layers of the following insulations:

| Base Insulation Layer | Insulation Fasteners (Table 3) | <u>Fastener</u> Density/ft ² |
|---|---|--|
| ACFoam-II, ACFoam-III, Multi-Max FA-3, H-Shield Minimum 1.5" thick | N/A | N/A |
| Top Insulation Layer (Optional) | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> <u>Density/ft²</u> |
| DensDeck, DensDeck Prime Minimum 0.5" thick | N/A | N/A |

Note: All insulation shall be adhered to the substrate in 3-3.5" wide beads spaced 12" o.c. of ICP Adhesive CR-20. 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.

| Membrane: | TremPly KEE roof cover adhered to the insulation with TremPly KEE LV Bonding Adhesive applied at an application rate of 1 gal./sq. to the backside of the membrane and to the substrate. The outside 1.5" of the lap is heat welded. |
|-----------------------------|---|
| | Or |
| | TremPly KEE FB roof cover adhered to the insulation with approved asphalt at 20-25 lbs./sq., or TremPly KEE FB Bonding Adhesive at 1 gal. per 100 ft ² or TremPly KEE FB WB II Bonding Adhesive at 100 ft ² /gal. The outside 1.5" of the lap is heat welded. |
| Maximum Design Pressure: | -240 psf (See General Limitation #9.) |



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| Membrane Type: | Single Ply, KEE |
|--------------------------|--|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | Min. 18-22 ga. Steel deck |
| System Type A(16): | One or more layers of insulation, maximum 1" thickness, adhered with approved <u>adhesive</u> to existing BUR. |

Vapor Barrier:Any UL or FM approved vapor barrier may be installed over the substrate.(Optional)

One or more layers of the following insulations:

| Insulation Layer | Insulation Fasteners (Table 3) | <u>Fastener</u> <u>Density/ft²</u> |
|--------------------------|-----------------------------------|--|
| DensDeck, DensDeck Prime | | |
| Minimum 0.5" thick | N/A | N/A |

Note: All insulation shall be adhered to the substrate in 3-3.5" wide beads spaced 12" o.c. of ICP Adhesive CR-20. 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.

| Membrane: | TremPly KEE roof cover adhered to the insulation with TremPly KEE LV Bonding Adhesive applied at an application rate of 1 gal./sq. to the backside of the membrane and to the substrate. The outside 1.5" of the lap is heat welded. | |
|----------------|---|--|
| | Or | |
| | TremPly KEE FB roof cover adhered to the insulation with approved asphalt at 20-25 lbs./sq., or TremPly KEE FB Bonding Adhesive at 1 gal. per 100 ft ² or TremPly KEE FB WB II Bonding Adhesive at 100 ft ² /gal. The outside 1.5" of the lap is heat welded. | |
| Maximum Design | | |
| Pressure: | -240 psf (See General Limitation #9.) | |



| Membrane Type: | Single Ply, KEE |
|--------------------------|---|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | 2500 psi. structural concrete or plank |
| System Type A(17): | One or more layers of insulation adhered with approved adhesive, membrane adhered |

| Vapor Barrier: | Hot-applied or Self-Adhering vapor barrier as indicated below: |
|----------------|--|
| (Optional) | |
| | Hot asphalt-applied base and/or ply sheets approved for use with roof cover followed by an |
| | additional approved asphalt-applied sheet. |

Self-adhered base membrane approved for use with roof cover followed by an additional approved self-adhered sheet.

One or more layers of the following insulations:

| Base Insulation Layer (Optional) | Insulation Fasteners | Fastener |
|--|-----------------------------|-------------------------|
| | <u>(Table 3)</u> | Density/ft ² |
| ACFoam-II, Multi-Max FA-3, H-Shield, ENRGY 3 | | |
| Minimum: 1.5" thick | N/A | N/A |
| Top Insulation Layer | Insulation Fasteners | <u>Fastener</u> |
| | <u>(Table 3)</u> | Density/ft ² |
| DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board | | |
| Minimum: 0.25 " thick | N/A | N/A |

Note: All insulation shall be adhered to the substrate or vapor barrier in ICP Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. 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.

 Membrane:
 TremPly KEE roof cover adhered with TremPly KEE LV Bonding Adhesive applied at a rate of 1 gal/sq. to the back side of the membrane and to the substrate. The outside 1.5" of the lap is heat welded.

 Or
 TremPly KEE FB roof cover adhered with hot asphalt at 25 lbs/sq. or TremPly KEE FB WB II Bonding Adhesive at 100 ft²/gal. The outside 1.5" of the lap is heat welded.

 Maximum Design
 -240 psf (See General Limitation #9.)



| Membrane Type: | Single Ply, KEE |
|--------------------------|---|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | 2500 psi. structural concrete or plank |
| System Type A(18): | One or more layers of insulation adhered with approved adhesive, membrane adhered |

Vapor Barrier: Any approved asphaltic vapor barrier or existing BUR.

One or more layers of the following insulations:

| Insulation Base Layer: | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> Density/ft2 |
|---|---|--------------------------------|
| ACFoam-II, ACFoam-III, Multi-Max FA-3 Minimum 1.5" thick | N/A | N/A |
| DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum ¹ / ₂ " thick | N/A | N/A |

Note: Insulation shall be adhered with ICP Adhesive CR-20 spray applied in 3" to 3½" ribbons spaced 12 in. o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:TremPly KEE roof cover adhered to the insulation with TremPly KEE LV Bonding
Adhesive applied at an application rate of 50 ft²/gal.
Or
TremPly KEE FB roof cover adhered to the insulation with approved asphalt at 20-25
lbs./sq., TremPly KEE FB Bonding Adhesive at 90 ft²/gal, TremPly KEE FB WB II Bonding
Adhesive at 100 ft²/gal.Maximum Design
Pressure:-262.5 psf (See General Limitation #9.)



| Membrane Type: | Single Ply, KEE |
|--------------------------|--|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | Min. 18-22 ga. Steel deck |
| System Type A(19): | One or more layers of insulation, maximum 1" thickness, adhered with approved adhesive, to existing BUR. |

One or more layers of the following insulations:

| Insulation Base Layer: | | Insulation Fasteners (Table 3) | <u>Fastener</u> Density/ft2 |
|---|--|-----------------------------------|--------------------------------|
| DensDeck, DensDeck F Minimum ½" thick | Prime, SECUROCK Gypsum-Fiber Roof Boar | | N/A |
| Note: Insulation shall be adhered with ICP Adhesive CR-20 spray applied in 3" to 3 ¹ / ₂ " ribbons spaced 12 in. o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. | | | |
| Membrane: | TremPly KEE roof cover adhered to the insula Adhesive applied at an application rate of 50 f | - | Bonding |
| | Or | | |
| | TremPly KEE FB roof cover adhered to the in lbs./sq., TremPly KEE FB Bonding Adhesive Bonding Adhesive at 100 ft ² /gal | ** * | |
| Maximum Design | -262.5 psf (See General Limitation #9.) | | |

Pressure:



| Membrane Type: | Single Ply, KEE |
|-------------------|---|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | 2500 psi. structural concrete or plank / cementitious wood fiber / min. 19/32" plywood or wood plank attached to structural supports spaced at a maximum of 24-in. o.c. with 8d ring shank nails at 6" o.c. / min 18-22ga steel |
| System Type B: | Base layer of insulation mechanically attached, top layer adhere; membrane adhered. |

| Vapor Barrier: (Optional) | Any UL or FM approved vapor barrier applied to the existing roof or over a base layer of insulation. |
|------------------------------|---|
| Fire Barrier: (Optional) | Min. ¼" DensDeck applied to the base or top insulation layer in a full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft ² or in ¾" to 1" wide beads 12" o.c. of Tremco Low Rise Foam Insulation Adhesive, Tremco Low Rise Foam Insulation Adhesive (BG), Tremco LR Adhesive, Millennium One Step Foamable Insulation Adhesive, Millennium PG-1 Low Viscosity Insulation Adhesive, Insta Stik Quik Set Adhesive or OMG OlyBond Adhesive Fastener at application rate of 1gal/100 ft ² . Vapor barrier is required if applied directly to lightweight concrete deck. |

One or more layers of the following:

| Base Insulation Layer | Insulation Fasteners (Table 3) | <u>Fastener Density/ft²</u> |
|--------------------------------|-----------------------------------|--|
| Multi-Max FA-3, H-Shield, ENRC | GY 3 | |
| Minimum 1.5" thick | Approved Fastener for Deck Type | 1:2 ft ² |
| Minimum 2" thick | Approved Fastener for Deck Type | 1:4 ft ² |
| DensDeck, DensDeck Prime | | |
| Minimum 0.25" thick | Approved Fastener for Deck Type | 1:2 ft ² |
| Top Insulation Layer | Insulation Fasteners (Table 3) | <u>Fastener Density/ft²</u> |
| Multi-Max FA-3, H-Shield, ENRO | GY 3 | |
| Minimum 1.5" thick | N/A | N/A |
| DensDeck, DensDeck Prime | | |
| Minimum 0.25" thick | N/A | N/A |

Note: Apply optional top layer of insulation in a full mopping of any approved mopping hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft² or in ³/₄" to 1" wide beads 12" o.c. of Tremco Low Rise Foam Insulation Adhesive, Tremco Low Rise Foam Insulation Adhesive (BG), Tremco LR Adhesive, Millennium One Step Foamable Insulation Adhesive, Millennium PG-1 Low Viscosity Insulation Adhesive, Insta Stik Quik Set Adhesive or OMG OlyBond Adhesive Fastener at application rate of 1gal/100 ft². Refer to Roofing Application Standard RAS 117 and insulation adhesive manufacturer's Roofing Component Product Control Approval for insulation attachment requirements. Insulations listed as base layer shall be used only as base layers with an optional top layer insulation installed as the final membrane substrate.



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| Membrane: | TremPly KEE roof cover adhered to the insulation with TremPly KEE LV Bonding Adhesive applied at an application rate of 1 gal./sq. to the backside of the membrane and to the substrate. The outside 1.5" of the lap is heat welded. |
|-----------------------------|---|
| | Or |
| | TremPly KEE FB roof cover adhered to the insulation with approved asphalt at 20-25 lbs./sq., TremPly KEE FB Bonding Adhesive at 1 gal. per 100 ft ² or TremPly KEE FB WB II Bonding Adhesive 100 ft ² /gal. The outside 1.5" of the lap is heat welded. |
| Maximum Design Pressure: | -45 psf (for all other substrates, insulation attachment options and with TremPly KEE FB applications) (See General Limitation #9.) |
| | -60 psf (for 2" thick polyiso. at 1 fastener per 4 ft ² over steel or concrete with TremPly KEE) (See General Limitation #9.) |
| | -67.5 psf (for 1.5" thick polyiso. at 1 fastener per 2 ft ² over steel or concrete with TremPly KEE) (See General Limitation #9.) |

| Membrane Type: | Single Ply, KEE |
|--------------------------|--|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | Min. 18-22 ga. steel deck. |
| System Type C(1): | All layers of insulation simultaneously attached over BUR or Modified Bitumen existing roof; Membrane adhered. |

One or more layers of the following insulations:

| Base Insulation Layer | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> Density/ft ² |
|--|---|--|
| ACFoam-II, H-Shield, H-Shield CG Maximum 1.0" thick | 9 with 6 | 1:2 ft ² |
| SECUROCK Gypsum-Fiber Roof Board, DensDeck Prime Maximum 1.0" thick | 9 with 6 | 1:2 ft ² |

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

| Membrane: | TremPly KEE FB roof cover fully adhered with spatter-applied ICP Adhesive CR-20. Laps are sealed with 1.5-inch heat weld. |
|-----------------------------|---|
| Maximum Design Pressure: | -45 psf (See General Limitation #9.) |



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| Membrane Type: | Single Ply, KEE |
|-------------------|--|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | 2500 psi. structural concrete or plank / cementitious wood fiber / min. 19/32" plywood or wood plank attached to structural supports spaced at a maximum of 24-in. o.c. with 8d ring shank nails at 6" o.c. / min 18-22ga 33ksi. steel |
| System Type C(2): | All layers of insulation simultaneously attached; membrane adhered. |

Vapor Barrier:Any UL or FM approved vapor barrier may be installed over the substrate or the base layer(Optional)of insulation.

| Base Insulation Layer | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> Density/ft ² |
|---|---|--|
| Multi-Max FA-3, H-Shield, ENRGY 3 Minimum 1" thick | N/A | N/A |
| Top Insulation Layer | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> Density/ft ² |
| Multi-Max FA-3, H-Shield, ENRGY 3 | | |
| Minimum 1.5" thick | Approved Fastener for Deck Type | 1:2 ft ² |
| Minimum 2" thick | Approved Fastener for Deck Type | 1:4 ft ² |
| DensDeck, DensDeck Prime | | |
| Minimum 0.5" thick | Approved Fastener for Deck Type | 1:1.7 ft ² |
| Minimum 0.25" thick | Approved Fastener for Deck Type | 1:1.3 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. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane:

TremPly KEE roof cover adhered to the insulation with TremPly KEE LV Bonding Adhesive applied at an application rate of 1 gal./sq. to the backside of the membrane and to the substrate. The outside 1.5" of the lap is heat welded.

Or

TremPly KEE FB roof cover adhered to the insulation with approved asphalt at 20-25 lbs./sq., TremPly KEE FB Bonding Adhesive at 1 gal. per 100 ft² or TremPly KEE FB WB II Bonding Adhesive at 100 ft²/gal. The outside 1.5" of the lap is heat welded.



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| Maximum Design Pressure: | -45 psf (for all other substrates, insulation attachment options and with TremPly KEE FB applications) (See General Limitation #9.) |
|-----------------------------|---|
| | -50 psf (for ¹ / ₄ " thick DensDeck or DensDeck Prime at 1 fastener per 1.3 ft ² over steel or concrete with TremPly KEE) (See General Limitation #9.) |
| | -60 psf (for 2" thick polyiso. at 1 fastener per 4 ft ² over steel or concrete with TremPly KEE) (See General Limitation #9.) |

-67.5 psf (for 1.5" thick polyiso. at 1 fastener per 2 ft^2 over steel or concrete with TremPly KEE) (See General Limitation #9.)



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| Membrane Type: | Single Ply, KEE |
|-------------------|--|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | 2500 psi. structural concrete or plank or Min. 22 ga., steel deck attached to structural supports spaced max. 6 ft o.c. attached with ITW Buildex Traxx/5 fasteners spaced max. 6 in. o.c. at supports (one fastener was installed at each bearing attachment). Deck side laps secured with ITW Buildex Traxx/1 fasteners spaced max. 24" o.c. |
| | This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table. |
| System Type D(1): | Membrane mechanically attached over preliminary fastened insulation. |

One or more layers of the following insulations:

| Base Insulation Layer | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> <u>Density/ft²</u> |
|--|---|--|
| ENRGY 3, Multi-Max FA-3, H-Shield, ACFoam II | | |
| Maximum 1" thick | N/A | N/A |
| Top Insulation Layer (Optional) | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> Density/ft ² |
| DensDeck, DensDeck Prime Maximum 1" thick | N/A | N/A |

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane 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.

| Membrane: | TremPly KEE, TremPly KEE FB secured through the preliminarily attached insulation as described below. |
|---------------|---|
| Fastening #1: | (ASTM A653 SS Grade 80 or A1008 SS Grade 80 Steel Deck or Structural Concrete) Trufast #15 EHD fasteners and Trufast 2-3/4" Barbed Seam Plates (EHD) spaced 12" o.c. within the 6" wide side laps in rows spaced 94" o.c. The roof cover side laps are sealed with a minimum 1.5" heat weld. Maximum Design Pressure: -45 psf. (See General Limitation #7.) |



| Fastening #2: | (<i>Type B Grade 80 Steel Deck or Structural Concrete</i>) Trufast #15 EHD fasteners and Trufast 2-3/4" Barbed Seam Plates (EHD) spaced 6" o.c. within the 6" wide side laps in rows spaced 94" o.c. The roof cover side laps are sealed with a minimum 1.5" heat weld. <i>Maximum Design Pressure: -67.5 psf. (See General Limitation #7.)</i> |
|------------------------------|---|
| Maximum Design Pressures: | See Fastening Options Above |



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| Membrane Type: | Single Ply, KEE |
|-------------------|---|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | Min. 22 ga., ASTM A 653 Grade 33 steel deck secured to structural supports spaced maximum 6 ft o.c. with ITW Buildex Traxx/5 fasteners spaced 6" o.c. Deck side laps secured with ITW Buildex Traxx/1 fasteners spaced 24" o.c. |
| | This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table. |
| System Type D(2): | Membrane mechanically attached over preliminary fastened insulation. |

One or more layers of the following insulations:

| Base Insulation Layer | Insulation Fasteners (Table 3) | <u>Fastener</u> Density/ft ² |
|---|-----------------------------------|--|
| ACFoam Composite, H-Shield, ENRGY 3, Ultra-Max, Thermaroo | of Composite-3 | |
| Maximum 1.0" thick | N/A | N/A |
| H-Shield-NB, H-Shield WF | | |
| Maximum 1.0" thick | N/A | N/A |
| ACFoam-II | | |
| Maximum 1.0" thick | N/A | N/A |
| Top Insulation Layer (Optional) | Insulation Fasteners (Table 3) | <u>Fastener</u> Density/ft ² |
| DensDeck, DensDeck Prime Minimum ¼" thick | N/A | N/A |

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane 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.

| Membrane: | TremPly KEE, TremPly KEE FB secured through the preliminarily attached insulation as specified below. |
|---------------|--|
| Fastening #1: | Dekfast DF-#15-PH3 fasteners with Dekfast PLT-O-2-1/2-12B plates or TremPly Plus Stress Plates, spaced 12" o.c. within the 5" laps in rows spaced 69" o.c. The side laps are sealed with a minimum 1.5" heat weld. <i>Maximum Design Pressure: -45 psf. (See General Limitation #7.)</i> |



| Fastening #2: | Dekfast DF-#15-PH3 fasteners with Dekfast PLT-O-2-1/2-12B plates or TremPly Plus Stress plates, spaced 6" o.c. within the 5" laps in rows spaced 69" o.c. The side laps are sealed with a minimum 1.5" heat weld. Maximum Design Pressure: -60.0 psf. (See General Limitation #7.) |
|------------------------------|---|
| Maximum Design Pressures: | See Fastening Options Above. |



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| Membrane Type: | Single Ply, KEE |
|-------------------|--|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | 2500 psi. structural concrete or plank or Min.18, 20, or 22 ga. Grade 80, Type B steel deck secured to support at a maximum span of 6' o.c. Steel deck shall be fastened with SFS Intec Impax 5 or ITW Buildex Traxx/5 at a maximum spacing of 6" o.c. Side laps shall be fastened with SFS Intec ¹ / ₄ -14 Lap Tek or Traxx/1 screws at a maximum spacing of 30 inches o.c. |
| | This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table. |
| System Type D(3): | Membrane mechanically attached over preliminary fastened insulation. |

| Vapor Barrier: (Optional) | Any UL or FM approved vapor barrier applied to the substrate or over a base layer of insulation. |
|------------------------------|--|
| Fire Barrier: (Optional) | Min. ¹ / ₄ " DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet. |

One or more layers of the following:

| Insulation Layer | Insulation Fasteners | <u>Fastener</u> |
|---|-----------------------------|-------------------------|
| | <u>(Table 3)</u> | Density/ft ² |
| Any approved polyisocyanurate Listed in Table 2 | | |
| Minimum 1.5" thick | N/A | N/A |

| Membrane: | TremPly KEE secured through the preliminarily attached insulation as specified below. |
|------------------------------|--|
| Fastening #1: | Dekfast DF-#15-PH3 fasteners and Dekfast PLT-O-2-1/2-12B plates or TremPly Plus Stress Plates spaced 12" o.c. in the 5" lap of membrane in rows spaced 72" o.c. The outside 1.5" of the lap is heat welded. <i>Maximum Design Pressure: -45 psf. (See General Limitation #7.)</i> |
| Fastening #2: | Dekfast DF-#15-PH3 fasteners and Dekfast PLT-O-2-1/2-12B plates or TremPly Plus Stress Plates spaced 6" o.c. in the 5" lap of membrane in rows spaced 96" o.c. The outside 1.5" of the lap is heat welded. <i>Maximum Design Pressure: -52.5 psf. (See General Limitation #7.)</i> |
| Maximum Design Pressures: | See Fastening Options Above |



| Membrane Type: | Single Ply, KEE |
|-------------------|--|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | 2500 psi. structural concrete or plank or Min. 22 ga., ASTM A653 or A1008 SS Grade 80 steel deck secured to structural supports spaced maximum 6 ft o.c. with Traxx/5 fasteners spaced 6" o.c. Deck side laps are secured with Traxx/1 fasteners spaced 30" o.c. |
| | This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table. |
| System Type D(4): | Membrane mechanically attached over preliminary fastened insulation. |

| Vapor Barrier: (Optional) | Any UL or FM approved vapor barrier applied to the substrate or over a base layer of insulation. |
|------------------------------|--|
| Fire Barrier: (Optional) | Min. ¹ / ₄ " DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet. |

One or more layers of the following insulations:

| Insulation Layer | Insulation Fasteners | <u>Fastener</u> |
|---|-----------------------------|-------------------------|
| | <u>(Table 3)</u> | Density/ft ² |
| Any approved polyisocyanurate Listed in Table 2 | | |
| Minimum 1.5" thick | N/A | N/A |

| Membrane: | TremPly KEE secured through the preliminarily attached insulation as specified below. | | | |
|---------------|--|--|--|--|
| Fastening #1: | Dekfast DF-#15-PH3 fasteners with Dekfast PLT-R-2-3/8-6B plates or Dekfast DF-#15-PH3 fasteners and <i>isofast</i> PLT-R-2-3/8-BL plates, spaced 6" o.c. within the 5" open laps in rows spaced 144.0" o.c., or installed through integral 3-1/2" fastening tab. The outside 1.5" of the lap is heat welded. | | | |
| | Maximum Design Pressure: -45 psf. (See General Limitation #7.) | | | |
| Fastening #2: | Dekfast DF-#15-PH3 fasteners with Dekfast PLT-R-2-3/8-6B plates or Dekfast DF-#15-PH3 fasteners and <i>isofast</i> PLT-R-2-3/8-BL plates, spaced 6" o.c. through the top of the roof cover in rows spaced 144.0" o.c. Rows are sealed by either welding a 6" cover strip or prefabricated 4.5" surface tab (closed lap configuration) over the fasteners. The edge of tab or both edges of cover strip are heat welded min. 1.5". Laps are sealed with 1.5-inch heat weld. | | | |
| | Maximum Design Pressure: -52.5 psf. (See General Limitation #7.) | | | |



| Fastening #3: | Dekfast DF-#15-PH3 fasteners with Dekfast PLT-R-2-3/8-6B plates or Dekfast DF-#15-PH3 fasteners and <i>isofast</i> PLT-R-2-3/8-BL plates, spaced 6" o.c. within the 5" open laps in rows spaced 72.0" o.c., or installed through integral 3-1/2" fastening tab. The outside 1.5" of the lap is heat welded. <i>Maximum Design Pressure: -67.5 psf. (See General Limitation #7.)</i> |
|-----------------------------|---|
| Maximum Design Pressure: | See Fastening Options Above. |



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| Membrane Type: | Single Ply, KEE |
|-------------------|--|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | 2500 psi. structural concrete or plank or minimum 22 gage ASTM A 611 Grade 80 Type B Steel deck fastened to steel support at a maximum span of 6' o.c. Steel deck shall be fastened with ITW Buildex Traxx/5 at a maximum spacing of 6" o.c. Side laps shall be fastened with Traxx/1 screws at a maximum spacing of 30 inches o.c. This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table. |
| System Type D(5): | Membrane mechanically attached over preliminary fastened insulation. |

| Vapor Barrier: (Optional) | Any UL or FM approved vapor barrier applied to the substrate or over a base layer of insulation. |
|------------------------------|--|
| Fire Barrier: (Optional) | Min. ¹ / ₄ " DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet. |

One or more layers of the following:

| Insulation Layer | Insulation Fasteners | Fastener |
|---|-----------------------------|-------------------------|
| | <u>(Table 3)</u> | Density/ft ² |
| Any approved polyisocyanurate Listed in Table 2 | | |
| Minimum 1.5" thick | N/A | N/A |

| Membrane: | TremPly KEE secured through the preliminarily attached insulation as specified below. |
|---------------|---|
| Fastening #1: | Dekfast DF-#15-PH3 fasteners and Dekfast PLT-O-2-1/2-12B plates or TremPly Plus Stress Plates spaced 18" o.c. within the 5" open laps in rows spaced 51" o.c. The outside 1.5" of the lap is heat welded. <i>Maximum Design Pressure: -45 psf. (See General Limitation #7.)</i> |
| Fastening #2: | Dekfast DF-#15-PH3 fasteners and Dekfast PLT-O-2-1/2-12B plates or TremPly Plus Stress Plates spaced 12" o.c. in the 5" open laps in rows spaced 51" o.c. The outside 1.5" of the lap is heat welded. <i>Maximum Design Pressure: -60 psf. (See General Limitation #7.)</i> |



| Fastening #3: | Fasten with Dekfast DF-#15-PH3 and Dekfast PLT-O-2-1/2-12B plates or TremPly Plus Stress Plates spaced 6" o.c. through the top of the roof cover spaced at maximum intervals of 104.5". Fastener rows are sealed by either welding a 6" cover strip or prefabricated 4.5" surface tab. (closed lap configuration) over the fasteners. The edge of the stripping and/or surface tabs shall be welded a minimum of 1". Laps are sealed with 1.5-inch heat weld. <i>Maximum Design Pressure: -75 psf. (See General Limitation #7.)</i> |
|------------------------------|---|
| Maximum Design Pressures: | See Fastening Options Above |



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| Membrane Type: | Single Ply, KEE |
|-------------------|---|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | 2500 psi. structural concrete or plank or min. 18-22 ga., Type B, Grade 33 steel deck fastened to steel support at a maximum span of 6' o.c. Steel deck shall be fastened with SFS Intec Impax 5 or ITW Buildex Traxx/5 at a maximum spacing of 6" o.c. Side laps shall be fastened with SFS Intec ¹ / ₄ -14 Lap Tek or Traxx/1 screws at a maximum spacing of 30 inches o.c. |
| | This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table. |
| System Type D(6): | Membrane mechanically attached over preliminary fastened insulation. |

| Vapor Barrier: (Optional) | Any UL or FM approved vapor retarder applied to the substrate or over a base layer of insulation. |
|--------------------------------------|--|
| Fire Barrier: (Optional) | Min. ¹ / ₄ " DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet. |
| One or more layers of the following: | |

| Insulation Layer | Insulation Fasteners | Fastener |
|---|-----------------------------|-------------------------|
| | <u>(Table 3)</u> | Density/ft ² |
| Any approved polyisocyanurate Listed in Table 2 | | |
| Minimum 1.5" thick | N/A | N/A |

| Membrane: | TremPly KEE secured through the preliminarily attached insulation as specified below. |
|------------------------------|---|
| Fastening #1: | Dekfast DF-#15-PH3 fasteners and Dekfast PLT-O-2-1/2-12B plates or TremPly Plus Stress Plates spaced 12" o.c. in the 5" lap of membrane in rows spaced 51" o.c. The outside 1.5" of the lap is heat welded. <i>Maximum Design Pressure: -52.5 psf. (See General Limitation #7.)</i> |
| Fastening #2: | Dekfast DF-#15-PH3 fasteners and Dekfast PLT-O-2-1/2-12B plates or TremPly Plus Stress Plates spaced 6" o.c. in the 5" lap of membrane in rows spaced 51" o.c. The outside 1.5" of the lap is heat welded. <i>Maximum Design Pressure: -60 psf. (See General Limitation #7.)</i> |
| Maximum Design Pressures: | See Fastening Options Above |



| Membrane Type: | Single Ply, KEE |
|-------------------|---|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | 2500 psi. structural concrete or plank or min. 18-22 ga., Type B, Grade 80 steel deck fastened to steel support at a maximum span of 6' o.c. Steel deck shall be fastened with SFS Intec Impax 5 or ITW Buildex Traxx/5 at a maximum spacing of 6" o.c. Side laps shall be fastened with SFS Intec ¹ / ₄ -14 Lap Tek or Traxx/1 screws at a maximum spacing of 30 inches o.c. |
| | This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table. |
| System Type D(7): | Membrane mechanically attached over preliminary fastened insulation. |

| Vapor Barrier: (Optional) | Any UL or FM approved vapor retarder applied to the substrate or over a base layer of insulation. |
|------------------------------|--|
| Fire Barrier: (Optional) | Min. ¹ / ₄ " DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet. |

One or more layers of the following:

| Insulation Layer | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> Density/ft ² |
|---|---|--|
| Any approved polyisocyanurate Listed in Table 2 | | |
| Minimum 1.5" thick | N/A | N/A |

| Membrane: | TremPly KEE secured through the preliminarily attached insulation as specified below. |
|------------------------------|---|
| Fastening #1: | Dekfast DF-#15-PH3 fasteners and Dekfast PLT-O-2-1/2-12B plates or TremPly Plus Stress Plates spaced 12" o.c. in the 5" lap of membrane in rows spaced 51" o.c. The outside 1.5" of the lap is heat welded. <i>Maximum Design Pressure: -52.5 psf. (See General Limitation #7.)</i> |
| Fastening #2: | Dekfast DF-#15-PH3 fasteners and Dekfast PLT-O-2-1/2-12B plates or TremPly Plus Stress Plates spaced 6" o.c. in the 5" lap of membrane in rows spaced 51" o.c. The outside 1.5" of the lap is heat welded. <i>Maximum Design Pressure: -67.5 psf. (See General Limitation #7.)</i> |
| Maximum Design Pressures: | See Fastening Options Above |



| Membrane Type: | Single Ply, KEE |
|-------------------|---|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | 2500 psi. structural concrete or plank or min. 22 ga., Type B, Grade 80 steel deck placed over minimum 0.25" thick structural supports having maximum 6 ft spans. Deck shall be anchored with ITW Buildex Traxx/4 or Traxx/5 fasteners spaced at maximum 6" o.c. at supports. Deck side laps shall be secured with ITW Buildex Traxx/1 fasteners spaced at a maximum 18" o.c. *The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 319 lbf when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105. |
| | This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table. |
| System Type D(8): | Membrane mechanically attached over preliminary fastened insulation. |

| Vapor Barrier: (Optional) | Any UL or FM approved vapor retarder applied to the substrate or over a base layer of insulation. |
|------------------------------|--|
| Fire Barrier: (Optional) | Min. ¹ / ₄ " DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet. |

One or more layers of the following:

| Insulation Layer | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> Density/ft ² |
|---|---|--|
| Any approved polyisocyanurate Listed in Table 2 Minimum 1" thick | N/A | N/A |

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane 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.

| TremPly KEE roof cover attached through the presecured insulation to the deck using |
|--|
| Dekfast DF-#15-PH3 fasteners and Dekfast PLT-O-2-1/2-12B plates or TremPly Plus Stress |
| Plates spaced 6" o.c. through the tabs spaced a maximum of 51" o.c. Laps are sealed with 1.5-inch heat weld. |
| |

Maximum Design-75 psf (See General Limitation #7.)Pressures:



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| Membrane Type: | Single Ply, KEE |
|-------------------|--|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | 2500 psi. structural concrete or plank or minimum 20 ga., Type B, Grade 80 steel decking placed over minimum 0.25" thick structural supports having maximum 5 ft spans. Deck shall be anchored with ITW Buildex Traxx/4 or Traxx/5 fasteners spaced at maximum 6" o.c. at supports. Deck side laps shall be secured with ITW Buildex Traxx/1 fasteners spaced at a maximum 18" o.c. * The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 784 lbf when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105. |
| | This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table |
| System Type D(9): | Membrane mechanically attached over preliminary fastened insulation. |

| Vapor Barrier: (Optional) | Any UL or FM approved vapor retarder applied to the substrate or over a base layer of insulation. |
|------------------------------|--|
| Fire Barrier: (Optional) | Min. ¹ / ₄ " DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet. |

One or more layers of the following:

| Insulation Layer | <u>Insulation Fasteners</u> <u>(Table 3)</u> | <u>Fastener</u> Density/ft ² |
|---|---|--|
| Any approved polyisocyanurate Listed in Table 2 Minimum 1" thick | N/A | N/A |

| Membrane: | TremPly KEE attached using Dekfast DF-#15-PH3 fasteners and Dekfast PLT-O-2-1/2-12B plates or Tremply Plus Stress plates spaced 6" o.c. through the top of the membrane spaced at intervals of 104.5". Laps are sealed with 1.5-inch heat weld. |
|------------------------------|---|
| Maximum Design Pressures: | -90 psf (See General Limitation #7.) |



| Membrane Type: | Single Ply, KEE |
|--------------------------|--|
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | 2500 psi. structural concrete or plank |
| System Type D(10): | Membrane mechanically attached over preliminary fastened insulation. |

| Vapor Barrier: (Optional) | Any UL or FM approved vapor retarder applied to the substrate or over a base layer of insulation. |
|------------------------------|--|
| Fire Barrier: (Optional) | Min. ¹ / ₄ " DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet. |

One or more layers of the following insulations:

| Insulation Layer | Insulation Fasteners (Table 3) | <u>Fastener</u> Density/ft ² |
|---|-----------------------------------|--|
| ACFoam-II, ACFoam-III, Ultra-Max, Multi-Max FA-3, ENRGY Minimum 1" thick | 7 3, H-Shield N/A | N/A |
| DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Minimum 0.25" thick | Board N/A | N/A |

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane 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.

| Membrane: | TremPly KEE roof cover attached through the preliminary fastened insulation to the deck following one of the fastening methods specified below: |
|------------------------------|---|
| Fastening #1: | Fasten with Dekfast DF-#15-PH3 fasteners or #14 Roofgrip fasteners and Dekfast PLT-O- 2-1/2-12B plates or TremPly Plus Stress plates spaced 6" o.c. through 5" wide open laps with a minimum 1.5" field weld or through 3.5" fastening tabs; spaced 51" o.c. Laps are sealed with 1.5-inch heat weld. <i>Maximum Design Pressure: -112.5 psf. (See General Limitation #7.)</i> |
| Fastening #2: | Fasten with Dekfast DF-#15-PH3 fasteners or #14 Roofgrip fasteners and Dekfast PLT-O- 2-1/2-12B plates or TremPly Plus Stress Plates spaced 6" o.c. through roof cover in rows spaced 51" o.c. Rows are sealed by either welding a 6" cover strip or prefabricated 4.5" surface tab (closed lap configuration) over the fasteners. The edge of tab or both edges of cover strip are heat welded min. 1.5". Laps are sealed with 1.5-inch heat weld. <i>Maximum Design Pressure: -112.5 psf. (See General Limitation #7.)</i> |
| Maximum Design Pressures: | See Fastening Options Above |



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| Membrane Type: | Single Ply, KEE |
|-------------------|---|
| Deck Type 7: | Recover, Non-insulated |
| Deck Description: | 2500 psi. structural concrete or plank / min 18-22ga. 33 ksi. steel (see Deck descriptions below) |
| System Type E(1): | Membrane mechanically attached to deck. |

| Vapor Barrier: (Optional) | Any UL or FM approved vapor retarder applied to the substrate. |
|------------------------------|--|
| Fire Barrier: (Optional) | Min. ¹ / ₄ " DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet. Vapor barrier is required if applied directly to lightweight concrete deck |
| Membrane: | TremPly KEE secured through the lightweight concrete as specified below. |
| Deck: | Minimum 2500 psi structural concrete deck or Minimum 22 gage ASTM A653 SS Grade 33 Type B Steel deck fastened to steel support at a maximum span of 6' o.c. Steel deck shall be fastened with SFS Intec Impax 5 or ITW Buildex Traxx/5 at a maximum spacing of 6" o.c. Side laps shall be fastened with SFS Intec ¹ / ₄ -14 Lap Tek or Traxx/1 screws at a maximum spacing of 30 inches o.c. This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table |
| Fastening #1: | Dekfast DF-#15-PH3 fasteners or TremPly Plus Stress plates spaced 12" o.c. in the 5" lap of membrane in rows spaced 51" o.c. The outside 1.5" of the lap is heat welded. <i>Maximum Design Pressure: -52.5 psf. (See General Limitation #7.)</i> |
| Fastening #2: | Dekfast DF-#15-PH3 fasteners or TremPly Plus Stress plates spaced 6" o.c. in the 5" lap of membrane in rows spaced 51" o.c. The outside 1.5" of the lap is heat welded. <i>Maximum Design Pressure: -60 psf. (See General Limitation #7.)</i> |
| Deck: | Minimum 2500 psi structural concrete deck or Minimum 22 gage ASTM A1008 SS Grade 80 Type B Steel deck fastened to steel support at a maximum span of 6' o.c. Steel deck shall be fastened with SFS Intec Impax 5 or ITW Buildex Traxx/5 at a maximum spacing of 6" o.c. Side laps shall be fastened with SFS Intec ¹ / ₄ -14 Lap Tek or Traxx/1 screws at a maximum spacing of 30 inches o.c. This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table |
| Fastening #3: | Dekfast DF-#15-PH3 fasteners or TremPly Plus Stress Plates spaced 12" o.c. in the 5" lap of membrane in rows spaced 72" o.c. The outside 1.5" of the lap is heat welded. <i>Maximum Design Pressure: -45 psf. (See General Limitation #7.)</i> |



| Fastening #4: | Dekfast DF-#15-PH3 fasteners or TremPly Plus Stress Plates spaced 6" o.c. in the 5" lap of membrane in rows spaced 96" o.c. The outside 1.5" of the lap is heat welded. <i>Maximum Design Pressure: -52.5 psf. (See General Limitation #7.)</i> |
|------------------------------|--|
| Deck: | Minimum 2500 psi structural concrete deck or Minimum 20 gage ASTM A653 SS Grade 33 Type B Steel deck fastened to steel support at a maximum span of 6' o.c. Steel deck shall be fastened with SFS Intec Impax 5 or ITW Buildex Traxx/5 at a maximum spacing of 6" o.c. Side laps shall be fastened with SFS Intec ¼-14 Lap Tek or Traxx/1 screws at a maximum spacing of 30 inches o.c. This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table |
| Fastening #5: | Dekfast DF-#15-PH3 fasteners or TremPly Plus Stress plates spaced 12" o.c. in the 5" lap of membrane in rows spaced 51" o.c. The outside 1.5" of the lap is heat welded. <i>Maximum Design Pressure: –52.5 psf. (See General Limitation #7.)</i> |
| Fastening #6: | Dekfast DF-#15-PH3 fasteners or TremPly Plus Stress plates spaced 6" o.c. in the 5" lap of membrane in rows spaced 51" o.c. The outside 1.5" of the lap is heat welded. <i>Maximum Design Pressure: -67.5 psf. (See General Limitation #7.)</i> |
| Maximum Design Pressures: | See Fastening Options Above |



| Membrane Type: | Single Ply, KEE |
|-------------------|---|
| Deck Type 7: | Recover, Non-insulated |
| Deck Description: | Minimum 2500 psi structural concrete deck, or min. 18-22 ga., ASTM A653 or A1008 SS Grade 80 steel deck secured to structural supports spaced 6 ft o.c. (see fastening options) with Traxx/5 fasteners spaced 6" o.c. Deck side laps are secured with Traxx/1 fasteners spaced 30" o.c. This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table |
| System Type E(2): | Membrane mechanically attached to deck. |

| Vapor Barrier: (Optional) | Any UL or FM approved vapor retarder applied to the substrate. |
|------------------------------|---|
| Fire Barrier: (Optional) | Min. ¹ / ₄ " DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet. Vapor barrier is required if applied directly to lightweight concrete deck |
| Membrane: | TremPly KEE secured through the lightweight concrete as specified below. |
| Fastening: | Dekfast DF-#15-PH3 fasteners with Dekfast PLT-R-2-3/8-6B plates or Dekfast DF-#15-PH3 fasteners and <i>isofast</i> PLT-R-2-3/8-BL plates, spaced 6" o.c. within the 5" over laps in rows spaced 72.0" o.c., or installed through integral 3-1/2" fastening tab. The outside 1.5" of the lap is heat welded. |
| Maximum Design Pressures: | -67.5 psf. (See General Limitation #7.) |



| Membrane Type: | Single Ply, KEE | |
|-------------------|---|--|
| Deck Type 7: | Recover, Non-insulated | |
| Deck Description: | 2500 psi. structural concrete or plank, or Minimum 22 gage ASTM A 611 Grade 80 Type B Steel deck fastened to steel support at a maximum span of 6' o.c. Steel deck shall be fastened with ITW Buildex Traxx/5 at a maximum spacing of 6" o.c. Side laps shall be fastened with Traxx/1 screws at a maximum spacing of 30 inches o.c. | |
| | This Tested Assembly has been analyzed for allowable deck stress. See Deck Stress Analysis Table | |
| System Type E(3): | Membrane mechanically attached to deck. | |

| Vapor Barrier: (Optional) | Any UL or FM approved vapor retarder applied to the substrate. |
|------------------------------|--|
| Fire Barrier: (Optional) | Min. ¹ / ₄ " DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet. Vapor barrier is required if applied directly to lightweight concrete deck. |
| Membrane: | TremPly KEE secured through the preliminarily attached insulation as specified below. |
| Fastening #1: | Dekfast DF-#15-PH3 fasteners or TremPly Plus Stress Plates spaced 18" o.c. within the 5" open laps in rows spaced 51" o.c. The outside 1.5" of the lap is heat welded. <i>Maximum Design Pressure: -45 psf. (See General Limitation #7.)</i> |
| Fastening #2: | Dekfast DF-#15-PH3 fasteners or TremPly Plus Stress Plates spaced 12" o.c. in the 5" open laps in rows spaced 51" o.c. The outside 1.5" of the lap is heat welded. <i>Maximum Design Pressure: -60 psf. (See General Limitation #7.)</i> |
| Fastening #3: | Fasten with Dekfast DF-#15-PH3 fasteners or TremPly Plus Stress Plates spaced 6" o.c. through the top of the roof cover spaced at maximum intervals of 104.5" Fastener rows are sealed by either welding a 6" cover strip or prefabricated 4.5" surface tab.(closed lap configuration) over the fasteners. The edge of the stripping and/or surface tabs shall be welded a minimum of 1". Laps are sealed with 1.5-inch heat weld. <i>Maximum Design Pressure: -75 psf. (See General Limitation #7.)</i> |
| Maximum Design Pressures: | See Fastening Options Above |



| Membrane Type: | Single Ply, KEE |
|-------------------|--|
| Deck Type 7: | Recover, Non-insulated |
| Deck Description: | Min. 200 psi Elastizell cellular lightweight concrete over min. 22 ga., Type B, Grade 80 steel deck with supports spaced maximum 5 ft o.c. * The deck shall record a Minimum Characteristic Resistance Force (MCRF) of 638 lbf when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 105. This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table. |
| System Type E(4): | Membrane mechanically attached to deck. |

| Lightweight Concrete: | Minimum 200 psi, Elastizell Celluar Lightweight Concrete applied with a minimum ¹ /4" thick slurry coat followed by a minimum 1" thick Apache Holey Board and a minimum 2" thick top coat. |
|------------------------------|---|
| Vapor Barrier: (Optional) | Any UL or FM approved vapor retarder applied to the substrate. |
| Fire Barrier: (Optional) | Min. ¹ / ₄ " DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet. |
| Membrane: | TremPly KEE roof cover attached through lightweight concrete to the deck using Dekfast DF-#15-PH3 fasteners or TremPly Plus Stress plates spaced 12" o.c. through the tabs spaced 51" o.c. Laps are sealed with 1.5-inch heat weld. |
| Maximum Design Pressures: | -75 psf (See General Limitation #7.) |



| Membrane Type: | Single Ply, KEE | |
|-------------------|--|--|
| Deck Type 7: | Recover, Non-insulated | |
| Deck Description: | 2500 psi. structural concrete or plank, or Minimum 228 psi cellular concrete, or min. 22 g Type B, Grade 80 steel decking placed over minimum 0.25" thick structural supports hav maximum 5 ft spans. Deck shall be anchored with min. 5/8" puddle welds or ITW Build Traxx/4 or Traxx/5 fasteners spaced at maximum 6" o.c. at supports. Deck side laps shal secured with ITW Buildex Traxx/1 fasteners spaced at a maximum 18" o.c. *The deck sl record a Minimum Characteristic Resistance Force (MCRF) of 637 lbf when tested with fasteners, listed in this assembly, installed through to the deck in accordance with TAS 10 | |
| | This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table. | |
| System Type E(5): | Membrane mechanically attached to deck. | |

| Vapor Barrier: (Optional) | Any UL or FM approved vapor retarder applied to the substrate. |
|------------------------------|---|
| Fire Barrier: (Optional) | Min. ¹ / ₄ " DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet. Vapor barrier is required if applied directly to lightweight concrete deck. |
| Membrane: | TremPly KEE roof cover attached through the presecured insulation to the deck using Dekfast DF-#15-PH3 fasteners and Dekfast PLT-O-2-1/2-12B plates spaced 6" o.c. through the tabs spaced a maximum of 51" o.c. Laps are sealed with 1.5-inch heat weld. |
| Maximum Design Pressures: | -75 psf (See General Limitation #7.) |



| Membrane Type: | Single Ply, KEE |
|--------------------------|---|
| Deck Type 7: | Recover, Non-Insulated |
| Deck Description: | 2500 psi. structural concrete or plank |
| System Type E(6): | Membrane mechanically attached to deck. |

| Vapor Barrier: (Optional) | Any UL or FM approved vapor retarder applied to the substrate |
|------------------------------|---|
| Fire Barrier: (Optional) | Min. ¹ / ₄ " DensDeck or DensDeck Prime attached with 4 fasteners per 4' x 8' sheet. |
| Membrane: | TremPly KEE roof cover attached to the deck following one of the fastening methods specified below: |
| Fastening #1: | Fasten with Dekfast DF-#15-PH3 fasteners or #14 Roofgrip fasteners and Dekfast PLT-O-2- 1/2-12B plates or TremPly Plus Stress plates spaced 6" o.c. through 5" wide open laps with a minimum 1.5" field weld or through 3.5" fastening tabs; spaced 51" o.c. Laps are sealed with 1.5-inch heat weld. <i>Maximum Design Pressure: -112.5 psf. (See General Limitation #7.)</i> |
| Fastening #2: | Fasten with Dekfast DF-#15-PH3 fasteners or #14 Roofgrip fasteners and Dekfast PLT-O-2- 1/2-12B plates or TremPly Plus Stress Plates spaced 6" o.c. through roof cover in rows spaced 51" o.c. Rows are sealed by either welding a 6" cover strip or prefabricated 4.5" surface tab (closed lap configuration) over the fasteners. The edge of tab or both edges of cover strip are heat welded min. 1.5". Laps are sealed with 1.5-inch heat weld. <i>Maximum Design Pressure: -112.5 psf. (See General Limitation #7.)</i> |
| Maximum Design Pressures: | See Fastening Options Above |

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| Membrane Type: | Single Ply, KEE |
|--------------------------|---|
| Deck Type 7: | Recover, Non-insulated |
| Deck Description: | 2500 psi. structural concrete or plank / min 18-22 ga steel |
| System Type F(1): | Membrane adhered to existing smooth surface BUR |

| Membrane: | TremPly KEE FB roof cover adhered to the existing roof with approved asphalt at 20-25 lbs./sq., TremPly KEE FB Bonding Adhesive at 1 gal. per 100 ft ² or TremPly KEE FB WB II Bonding Adhesive at 100 ft ² /gal. Laps are sealed with 1.5-inch heat weld. |
|----------------|--|
| Maximum Design | -45 psf (See General Limitation #9.) |

Pressure:



| Membrane Type: | Single Ply, KEE |
|--------------------------|--|
| Deck Type 7: | Recover, Non-insulated |
| Deck Description: | 2500 psi. structural concrete or plank |
| System Type F(2): | Membrane adhered to existing smooth/granular surface BUR or smooth/granular surface SBS Modified Bitumen or granular surface APP Modified Bitumen. |

| Membrane: | TremPly KEE FB roof cover adhered to the existing roof with approved asphalt at 20-25 lbs./sq., or spatter-applied with ICP Adhesive CR-20. The outside 1.5" of the lap is heat welded. Laps are sealed with 1.5-inch heat weld. |
|-----------------------------|--|
| Maximum Design Pressure: | -45 psf (See General Limitation #9.) |



| Membrane Type: | Single Ply, KEE |
|--------------------------|---|
| Deck Type 7: | Recover, Non-insulated |
| Deck Description: | Minimum 200 psi, Celcore Cellular Concrete over structural concrete or plank. |
| System Type F(3): | Membrane adhered to deck. |

| Lightweight Concrete: | Minimum 200 psi, Celcore Cellular Concrete applied with a minimum 1/8" slurry coat followed by an optional minimum 1" thick Holey Board and a minimum 2" thick top coat. After setting, Celcore PVA Curing Compound is applied at a minimum rate of 300 ft²/gal. |
|-----------------------------|--|
| Membrane: | TremPly KEE FB roof cover adhered to the insulation with TremPly KEE FB Bonding Adhesive at 1 gal. per 75 ft ² applied to substrate or TremPly KEE FB WB II Bonding Adhesive at 100 ft ² /gal. Membrane rolled in with weighted roller. Laps are sealed with 1.5-inch heat weld. |
| Maximum Design Pressure: | -135.0 psf; (See General Limitation #9.) |



| Membrane Type: | Single Ply, KEE |
|--------------------------|---|
| Deck Type 7: | Recover, Non-insulated |
| Deck Description: | Minimum 200 psi, Celcore Cellular Concrete over structural concrete or plank. |
| System Type F(4): | Membrane adhered to deck. |

| Lightweight Concrete: | Minimum 200 psi, Celcore Cellular Concrete, minimum 2" thick layer. After setting, Celcore PVA Curing Compound is applied at a minimum rate of 300 ft ² /gal. |
|-----------------------------|--|
| Membrane: | TremPly KEE FB roof cover adhered to the insulation with TremPly KEE FB Bonding Adhesive at 1 gal. per 75 ft ² applied to substrate or TremPly KEE FB WB II Bonding Adhesive at 100 ft ² /gal. Membrane rolled in with weighted roller. Laps are sealed with 1.5-inch heat weld. |
| Maximum Design Pressure: | -135.0 psf; (See General Limitation #9.) |



| Membrane Type: | Single Ply, KEE |
|--------------------------|---|
| Deck Type 7: | Recover, Non-insulated |
| Deck Description: | Minimum 300 psi Concrecel Lightweight Concrete over structural concrete or plank. |
| System Type F(5): | Membrane adhered to deck. |

| Vapor Barrier: | Any approved asphaltic vapor barrier or existing BUR. |
|-----------------------------|---|
| Lightweight Concrete: | Minimum 300 psi, Concrecel Lightweight Concrete applied with a minimum ¹ / ₄ " thick slurry coat followed by an optional minimum 1" thick Apache Holey Board and a minimum 2.25" thick top coat. |
| Treatment: | Concrecel Curing Compound applied to the deck top surface when walkable, at a rate of 600 $\rm ft^2/gal$. |
| Membrane: | TremPly KEE FB roof cover adhered to the insulation with TremPly KEE FB Bonding Adhesive at 1 gal. per 75 ft ² applied to substrate or with TremPly KEE FB WB II Bonding Adhesive at 100 ft ² /gal. Membrane rolled in with weighted roller. Laps are sealed with 1.5-inch heat weld. |
| Maximum Design Pressure: | -375.0 psf; (See General Limitation #9.) |



| Membrane Type: | Single Ply, KEE |
|--------------------------|---|
| Deck Type 7: | Recover, Non-insulated |
| Deck Description: | 2500 psi. structural concrete or plank |
| System Type F(6): | Membrane adhered to existing smooth/granular surface BUR or smooth/granular surface SBS Modified Bitumen or granular surface APP Modified Bitumen |

| Membrane: | TremPly KEE FB roof cover adhered to the existing roof with approved asphalt at 20-25 lbs./sq. or spatter-applied with ICP Adhesive CR-20. The outside 1.5" of the lap is heat welded. Laps are sealed with 1.5-inch heat weld. |
|-----------------------------|---|
| Maximum Design Pressure: | -410 psf (See General Limitation #9.) |



RECOVER SYSTEM LIMITATIONS:

1. All System Limitations and General Limitations shall apply. See specific deck type Notice of Acceptance for deck type System Limitations.

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 sidelap 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 Engineer, 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.
- 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 and/or RAS 137. 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 with 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

