

Certificate of Authorization No. 29824 17520 Edinburgh Drive Tampa, FL 33647 (813) 480-3421

#### **EVALUATION REPORT**

#### FLORIDA BUILDING CODE, 7<sup>TH</sup> EDITION (2020)

Manufacturer: U.S. Ply, Inc. Issued August 11, 2020

PO Box 11740 Fort Worth, TX 76110 (866) 787-4759 www.usply.com

Manufacturing Plants: Tuscaloosa, AL

Quality Assurance: UL LLC (QUA9625)

SCOPE

Category: Roofing
Subcategory: Built-Up Roofing

**Code Sections:** 1504.3.1, 1507.6.5, 1507.10.2, 1515.1.1 **Properties:** Wind Resistance, Physical Properties

#### **PRODUCT DESCRIPTION**

| Products                               | Description  |
|--|--|
| USP Base Sheet                         | USP Base Sheet is an ASTM D 4601, Type II base sheet used as a mechanically fastened or adhered base sheet in a variety of built-up roofing applications.  |
| USP Type IV Fiberglass<br>Felt         | USP Type IV Fiberglass Felt is an ASTM D 2178, Type IV ply sheet used in hot mopped built-up roofing applications.   |
| USP Premium Type VI<br>Fiberglass Felt | USP Premium Type VI Fiberglass Felt is an ASTM D 2178, Type VI ply sheet used in hot mopped built-up roofing applications.                                 |
| USP Mineral Cap Sheet                  | USP MINERAL CAP SHEET is an ASTM D 3909 asphalt roll roofing product surfaced with mineral granules for use in a variety of built-up roofing applications. |

#### **REFERENCES**

| - w   | 5 (1)         | 0               |                   |
|---|---------------|-----------------|-------------------|
| <u>Entity</u>                                     | Report No.    | <u>Standard</u> | <u>Year</u>       |
| FM (TST1867)                                      | 3004059       | FM 4470         | 2016              |
| FM (TST1867)                                      | 3012321       | FM 4470         | 2016              |
| FM (TST1867)                                      | 3014751       | FM 4470         | 2016              |
| FM (TST1867)                                      | 3020703       | FM 4470         | 2016              |
| Miami-Dade BCCO (CER1592)                         | 11-0104.07    | FM 4470         | 2016              |
| Miami-Dade BCCO (CER1592)                         | 11-0104.08    | FM 4470         | 2016              |
| Miami-Dade BCCO (CER1592)                         | 11-0414.07    | FM 4470         | 2016              |
| PRI Construction Materials Technologies (TST5878) | BWR-505-02-01 | ASTM D 2178     | 2015              |
| PRI Construction Materials Technologies (TST5878) | BWR-506-02-01 | ASTM D 2178     | 2015              |
| PRI Construction Materials Technologies (TST5878) | BWR-508-02-01 | ASTM D 4601     | 2004(2012)E1      |
| PRI Construction Materials Technologies (TST5878) | BWR-530-02-01 | ASTM D 4601     | 2004(2012)E1      |
| PRI Construction Materials Technologies (TST5878) | BWR-539-02-01 | ASTM D 3909     | 2014              |
| PRI Construction Materials Technologies (TST5878) | MSA-006-02-01 | ASTM D 4897     | 2001(2009)        |
| PRI Construction Materials Technologies (TST5878) | MSA-018-02-01 | FM 4474(B)      | 2011              |
| •           |               | TAS 114(D)      | 2011              |
| PRI Construction Materials Technologies (TST5878) | USP-014-02-01 | FM 4474(B)      | 2011              |
| •           |               | TAS 114(D)      | 2011              |
| PRI Construction Materials Technologies (TST5878) | USP-015-02-01 | FM 4474(D)      | 2011              |
| •           |               | TAS 114(J)      | 2011              |
| UL LLC (TST9628)                                  | R20817        | UL 1897         | 2012              |
| UL LLC (TST9628)                                  | R11662        | ASTM D 4601     | 2004(2012)E1      |
| ,   |               | ASTM D 2178     | 2015 <sup>′</sup> |

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#### **LIMITATIONS**

- This evaluation report is not use in the HVHZ.
- 2. Fire classification is not within the scope of this evaluation.
- 3. The roof deck and the roof deck attachment shall be designed by others to meet the minimum design loads established for components and cladding and in accordance with FBC requirements.
- 4. Foam plastic insulation shall be installed in accordance with the FBC Section 2603.4 and 2603.6.
- 5. Installation of the evaluated products shall comply with this report, the FBC, and the manufacturer's published application instructions. Where discrepancies exist between these sources, the more restrictive and FBC compliant installation detail shall prevail.
- 6. The minimum roof slope shall be 1/4:12 for new construction.
- 7. For assemblies containing mechanical attachment, the allowable uplift pressure for the selected assembly shall meet or exceed the minimum design loads as determined in accordance with the FBC Chapter 16. For perimeter and corner roof zones 2 and 3, the attachment density may be increased by a qualified design professional, as necessary, to meet the design pressure requirements in these areas. Commonly used standards include RAS 117, FM LPDS 1-29, or ANSI/SPRI WD-1.
- 8. Reroofing applications shall be examined in accordance with FBC Section 1511. For mechanically fastened systems, a field withdrawal resistance test (ANSI/SPRI FX-1 or TAS 105) shall be conducted by a qualified professional to ensure the fastener meets the minimum design load requirements of the system. For adhered systems, a field uplift resistance test (ASTM E 907, FM LPDS 1-52, ANSI/SPRI IA-1, or TAS) shall be conducted to confirm conformance of the existing to the minimum design loads.
- 9. For assemblies containing fully adhered or ribbon adhered attachment, or where extrapolation of the assembly is not permitted, the *MDP* for the selected assembly shall meet or exceed the minimum design loads as determined in accordance with the FBC Chapter 16 without augmentation.
- All products listed in this report shall be manufactured under a quality assurance program in compliance with Rule 61G20-3.



#### **COMPLIANCE STATEMENT**

The products evaluated herein by Zachary R. Priest, P.E. have demonstrated compliance with the Florida Building Code, 7<sup>th</sup> Edition (2020) as evidenced in the referenced documents submitted by the named manufacturer.



Zachary R. Priest, P.E. Florida Registration No. 74021 Organization No. ANE9641

#### **CERTIFICATION OF INDEPENDENCE**

CREEK Technical Services, LLC does not have, nor will it acquire, a financial interest in any company manufacturing or distributing products under this evaluation.

CREEK Technical Services, LLC is not owned, operated, or controlled by any company manufacturing or distributing products under this evaluation.

Zachary R. Priest, P.E. does not have, nor will acquire, a financial interest in any company manufacturing or distributing products under this evaluation.

Zachary R. Priest, P.E. does not have, nor will acquire, a financial interest in any other entity involved in the approval process of the product.

#### **APPENDICES**

- 1) APPENDIX A Installation (2 page)
- 2) APPENDIX B Nomenclature and Approved Assemblies (12 pages)



### [APPROVED ASSEMBLIES] [NOMENCLATURE]

U.S. PLY, INC. **Built-Up Roofing** 

**APPENDIX A** 

#### INSTALLATION

Note - Refer to the <u>Approved Assemblies</u> section of this report within Appendix B for specific installation details of a selected assembly.

Unless otherwise specified in this report the following installation details shall be met for the named products:

| Component             | Product                                  | Installation Detail  |
|-----------------------|--|--|
|                       | Dekfast DF-#12-PH3                       | #12 fastener; Min.0.75-inch penetration through the top rib of the steel deck  |
|                       | Dekfast DF-#14-PH3                       | #14 fastener; Min. 0.75-inch penetration through the top rib of the steel deck or wood deck. Min. penetration 1-inch into concrete deck. |
|                       | Dekfast PLT-R-3                          | 3" diameter, round Galvalume® steel plate  |
|                       | Dekfast Galvalume Steel Hex              | 2 7/8" x 3 1/4" hexagonal Galvalume® steel plate   |
|                       | Dekfast Recessed Galvalume Steel<br>Hex  | 2 7/8" x 3 1/4" hexagonal Galvalume® steel plate   |
|                       | Dekfast System ES #12 Steel              | Pre-assembled #12 fastener and 3" round Galvalume® steel plate   |
|                       | Firestone All Purpose Fastener           | #14 fastener for steel decks   |
|                       | Firestone Heavy Duty Fastener            | #15 fastener for steel or concrete decks   |
|                       | Firestone Hexagonal Plate                | 2 7/8" x 3 3/8" hexagonal plate  |
|                       | OMG #12 Standard Hex Head                | #12 fastener for steel decks   |
|                       | OMG G-2 Plate                            | 3 1/2" diameter round Galvalume® AZ55 Steel Plate  |
|                       | OMG Polymer GypTec                       | For use in gypsum and cementitious wood fiber deck; Min. 1.5-inch embedment  |
|                       | OMG 3-in. GypTec Plate                   | 3-inch round Galvalume® steel plate for use with Polymer GypTec fasteners  |
| Fastening Systems     | OMG CD-10 Fastener                       | Min. penetration 1-inch into concrete deck.  |
| Fastening Systems     | OMG Heavy Duty Fastener                  | #14 fastener; Min. 0.75-inch penetration through the top rib of the steel deck or wood deck. Min. penetration 1-inch into concrete deck. |
|                       | OMG Strap Toggle                         | 1/4" diameter x 2" long toggle bolt for steel decks  |
|                       | OMG Plastic Plate                        | 3" round Polypropylene plate   |
|                       | OMG #12 Standard Roofgrip                | #12 fastener; Min.0.75-inch penetration through the top rib of the steel deck  |
|                       | OMG 3" Round Plate                       | 3" round Galvalume® steel plate  |
|                       | OMG Recessed Metal Plate                 | 3" round Galvalume® steel plate  |
|                       | TRUFAST #12 DP Fastener                  | #12 fastener for steel decks   |
|                       | TRUFAST #12 DPH Fastener                 | #12 HWH fastener for steel decks   |
|                       | TRUFAST #14 HD Fastener                  | #14 fastener for steel or concrete decks   |
|                       | TRUFAST 3" Metal Insulation Plate        | 3" round stress plate  |
|                       | TRUFAST TL Fastener                      | For use in gypsum and cementitious wood fiber deck   |
|                       | TRUFAST 3" TL Insulation Plate           | 3-inch round Galvalume® steel plate with reinforcing ribs for use with TL fasteners; Min. 1.5-inch embedment                             |
|                       | TRUFAST Twin Loc-Nail Assembled Fastener | Min. 1.8-inch shank; Base sheet fastener with integrated 2.7-inch diameter plate and locking staple.                                     |
|                       | ASTM D 312, Type IV asphalt              | Fully adhered within the EVT range at a rate of 20-40 lbs/100 ft <sup>2</sup>  |
|                       | ICP Adhesives CR-20                      | Applied in 2.5 to 3.5-inch wide continuous ribbons; Max. 12-inch o.c.  |
| Insulation Adhesives  | Insta-Stik Roofing Adhesive              | Applied in 1-inch wide continuous ribbons; Max. 12-inch o.c.   |
|                       | Millennium One Step Foamable<br>Adhesive | Applied in 1/2 to 3/4-inch wide continuous ribbons; Max. 12-inch o.c.  |
|                       | OMG OlyBond 500                          | Applied in 3/4 to 1-inch wide continuous ribbons; Max. 12-inch o.c.  |
| Membrane<br>Adhesives | ASTM D 312, Type IV asphalt              | Fully adhered within the EVT range at a rate of 20-40 lbs/100 ft <sup>2</sup>  |

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# [APPROVED ASSEMBLIES] [NOMENCLATURE]

#### **APPENDIX A**

| Component            | Product                                    | Installation Detail  |
|----------------------|--|--|
|                      | ACFoam II                                  | Min. 1/2-inch thick; Min. 20 psi; Adhered boards shall be a maximum 4 ft x 4 ft  |
|                      | ACFoam Composite                           | Adhered boards shall be a maximum 4 ft x 4 ft  |
|                      | ENRGY 3                                    | Min. 1/2-inch thick; Min. 20 psi; Adhered boards shall be a maximum 4 ft x 4 ft  |
|                      | EnergyGuard High Density Fiberboard        | Min. 1/2-inch thick  |
|                      | EnergyGuard Perlite                        | Min.3/4-inch thick   |
|                      | EPS  | Min 0.5-inch; Adhered boards shall be a maximum 4-ft x 4-ft  |
|                      | Fesco Board                                | Min.3/4-inch thick   |
|                      | Fesco Foam                                 | Min. 1.5-inch thick; Adhered boards shall be a maximum 4 ft x 4 ft   |
| Insulation Boards    | Firestone ISO 95+ Composite                | Min. 1.5-inch thick; Adhered boards shall be a maximum 4 ft x 4 ft   |
| modiciion Boardo     | Firestone ISO 95+ GL                       | Min. 1/2-inch thick; Min. 20 psi; Adhered boards shall be a maximum 4 ft x 4 ft  |
|                      | Georgia Pacific DensDeck                   | Min. 1/4-inch thick  |
| Insulation Boards    | Georgia Pacific DensDeck Prime             | Min. 1/4-inch thick  |
|                      | H-Shield                                   | Min. 0.5-inch thick; Min. 20 psi polyisocyanurate board with various facers; Adhered boards shall be a maximum 4-ft x 4-ft |
|                      | Multi-Max FA-3                             | Min. 1/2-inch thick; Min. 20 psi; Adhered boards shall be a maximum 4 ft x 4 ft  |
|                      | Structodek High Density Fiberboard         | Min. 0.5-inch thick  |
|                      | Thermaroof Composite-3                     | Min. 1.5-inch thick; Adhered boards shall be a maximum 4 ft x 4 ft   |
|                      | USG SECUROCK Gypsum-Fiber<br>Roof Board    | Min. 0.25-inch thick gypsum roof board with fiber reinforcement  |
| Base Sheets          | USP Base Sheet                             | Min. 4-inch side laps  |
|                      | USP Type IV Fiberglass Felt                |  |
| Ply Sheets           | USP Premium Type VI Fiberglass<br>Felt     | Min. 4-inch side laps  |
| Cap Sheets           | USP Mineral Cap Sheet                      | Min. 4-inch side laps  |
|                      | Min. 300 psi Cellular Lightweight Concrete |  |
| Cellular Lightweight | Min. 200 psi Celcore                       | Slurry coat min. 1/8-inch thick; Min. 1-inch thick EPS board   |
| Concrete             | Min. 200 psi Elastizell                    | (1 lbs/ft <sup>3</sup> ); Min. 2-inch top coat   |
|                      | Min. 200 psi Mearlcrete                    | 1  |

U.S. PLY, INC. Built-Up Roofing

**APPENDIX B** 

#### NOMENCLATURE

The following naming conventions are utilized to specify products in the <u>APPROVED ASSEMBLIES</u> section of this report. Refer to the nomenclature below when deciphering the allowable products for use in the selected assembly. Installation requirements shall be as noted in the <u>APPROVED ASSEMBLIES</u> and <u>INSTALLATION</u> section of this report.

| Name                    | Definition   |  |  |  |  |  |
|-------------------------|--|--|--|--|--|--|
| As Tested               | Information provi  | ded to the report user   | based on the as tested condition of the roof system  |  |  |  |
| BUR                     | 1) Three rate of 2) Two or 3) One pl by floo approv 4) One pl by one | or four plies of USP To<br>60 lbs/100 ft² plus full<br>three plies of USP To<br>y of USP Base Sheet<br>d coat of hot asphalt a<br>ed surfacing; Not for u<br>y of USP Base Sheet<br>ply of USP Mineral C | Type IV hot asphalt using one of the following combinations:  ype IV Fiberglass Felt or USP Premium Type VI Fiberglass Felt followed by flood coat of hot asphalt applied at a  y embedded gravel applied at a rate of 400 lbs/100 ft², or other approved surfacing  /pe IV Fiberglass Felt or USP Premium Type VI Fiberglass Felt followed by one ply of USP Mineral Cap Sheet  followed by two or three plies of USP Type IV Fiberglass Felt or USP Premium Type VI Fiberglass Felt followed  applied at a rate of 60 lbs/100 ft² plus fully embedded gravel applied at a rate of 400 lbs/100 ft², or other  use over mechanically attached USP Base Sheet  followed by one or two plies of USP Type IV Fiberglass Felt or USP Premium Type VI Fiberglass Felt followed  ap Sheet; Not for use over mechanically attached USP Base Sheet |  |  |  |
| CD Fasteners and Plates | -OMG 3" Round  |  | k:<br>y Duty or CD-10 fastener<br>ith TRUFAST #14HD fastener   |  |  |  |
| CR-20                   | ICP Adhesives C  |  |  |  |  |  |
| Composite               | One of more layer -ACFoam Comport -Thermaroof Comport                | osite  | n any combination of: - ISO 95+ Composite - site-3 -Fesco Foam   |  |  |  |
|                         | As Tested deck construction details are described as follows:        |  |  |  |  |  |
|                         | Concrete Deck  | Min. $f'_c = 2,500 \text{ psi } a$   | at 28 days   |  |  |  |
|                         | Steel Deck   |  | ib Deck (Type WR) conforming to ANSI/SDI-RD1.0 & FBC; 0.5% Vented for LWIC applications only. The ture is used to further describe the As Tested condition.  |  |  |  |
|                         |  | F<#>   | <#> #12-24 HWH self-drilling screws or equivalent fastener at each flute used to secure the deck to the structural supports; Min. 1/4-inch penetration   |  |  |  |
|                         |  | G<#>   | Min. Grade <#> of Steel Deck   |  |  |  |
| 6 16 1                  |  | L<#>   | Max. span of <#> ft  |  |  |  |
| Deck Detail             |  | Р  | Min. 5/8-inch diameter puddle welds at each flute used to secure the deck to the structural supports   |  |  |  |
|                         |  | S<#>   | 1/4 "-14 HWH x7/8" self-drilling screws or equivalent fastener secured <#>-inch o.c. along the panel side laps   |  |  |  |
|                         |  | W  | 3/4-inch O.D. flat washer used with indicated fastener   |  |  |  |
|                         | Wood Deck  | The following nome   | nclature is used to further describe the As Tested condition:  |  |  |  |
|                         |  | T<#>   | Min. <#>-inch thickness of the plywood or wood plank   |  |  |  |
|                         |  | L<#>   | Max. span of <#> inches  |  |  |  |
|                         |  | 0.113-<#1>/<#2>  | 0.113-inch x 2-3/8-inch ring shank nails; Secured <#1> of fasteners at all intermediate supports and at the number <#2> of fasteners at the perimeter of each board  |  |  |  |
| DensDeck                | Min. 1/4-inch Ge   | orgia-Pacific DensDec  | ck   |  |  |  |
| DensDeck Prime          | Min. 1/4-inch Ge   | orgia-Pacific DensDec  | ck Prime   |  |  |  |

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**APPENDIX B** 

| Name                    | Definition  |
|-------------------------|---|
| Fasteners and Plates    | Any of the following fasteners and plates: -Dekfast DF-#12-PH3 or Dekfast DF-#14-PH3 with Dekfast PLT-R-3 or Galvalume Steel Hex Plate -Firestone All Purpose Fastener or Heavy Duty Fastener with Hexagonal Plate -OMG #12 Standard Roofgrip, OMG Heavy Duty, OMG #12 Standard Hex Head or Strap Toggle with OMG 3" Round, OMG G-2 or OMG Recessed Metal Plate -Dekfast System ES #12 Steel -TRUFAST #12 DP Fastener or TRUFAST #14 HD Fastener with TRUFAST 3" Metal Insulation Plate |
| HA Base                 | One ply of USP Base Sheet fully bonded in ASTM D 312, Type IV hot asphalt   |
| HD Fasteners and Plates | Any of the following fasteners and plates: -OMG Heavy Duty with OMG 3" Round Plate -TRUFAST #14 HD with TRUFAST 3" Metal Insulation Plate   |
| Insta-Stik              | Insta-Stik Roofing Adhesive   |
| Insulation              | One or more layers or combinations of roofing insulation listed in this report or <i>approved</i> under rule 61G20-3, such as gypsum, perlite, polyisocyanurate, polystyrene, or wood fiberboard. Insulation shall be preliminarily secured unless otherwise noted.   |
| Insulation Fasteners    | Any of the following fasteners and plates: -Dekfast DF-#12-PH3 or Dekfast DF-#14-PH3 with Dekfast PLT-R-3 or Galvalume Steel Hex plate -Firestone All-Purpose Fastener and Firestone Hexagonal Plate -OMG #12 Standard Roofgrip, OMG Heavy Duty, or Strap Toggle with OMG 3" Galvalume Steel Plate, Recessed Metal Plate, or G-2 Plate -TRUFAST #12 DP Fastener, TRUFAST #12 DPH Fastener, or TRUFAST #14 HD Fastener with TRUFAST 3" Metal Insulation Plate                            |
| ISO                     | One or more layers in any combination of: -ACFoam II -Multi-Max FA-3 -ISO 95+ GL  |
| ISO I                   | One or more layers in any combination of: -ACFoam II -H-Shield -ISO 95+ GL  |
| ISO II                  | One or more layers in any combination of: -ACFoam II -ACFoam III -H-Shield -ISO 95+ GL -Multi-Max FA-3  |
| LWIC                    | Poured-in-place Cellular Lightweight Concrete with encapsulated insulation board  |
| MDP                     | Maximum Design Pressure   |
| OB500                   | OMG OlyBond 500   |
| OSFA                    | Millennium One Step Foamable Adhesive   |
| Recover                 | Where assemblies are used to recover an existing roof, the existing roof shall consist of only one layer of roofing, i.e. recovering a previously recovered roof is not permitted. Recover roofing shall be conducted in compliance with FBC Section 1511. For mechanically fastened roof assemblies, the existing roof insulation thickness may be contributory in meeting the minimum insulation thickness requirements for a given assembly.   |
| SD Fasteners and Plates | One of the following with steel deck: -OMG 3" Round Plate with OMG #12 Standard Roofgrip or Heavy Duty fastener -TRUFAST 3" Metal Insulation Plate with TRUFAST #12 DP or #14 HD fastener   |
| SECUROCK                | Min. 1/4-inch SECUROCK Gypsum-Fiber Roof Board  |
|                         |   |

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U.S. PLY, INC. Built-Up Roofing

APPENDIX B

#### **APPROVED ASSEMBLIES**

The following notes shall be observed when using the assembly tables below.

- 1. MDPs were calculated using a 2:1 margin of safety per FBC Section 1504.9.
- 2. Refer to LIMITATIONS and NOMENCLATURE sections of this evaluation when using the table(s) below.
- 3. Refer to INSTALLATION section of this report for installation detail when the information is not explicitly stated for the selected assembly.
- 4. The on-center (o.c.) spacing given is the maximum allowable attachment spacing for the rated system.
- 5. As Tested information for roof deck construction is provided for information only. The addition of the As Tested deck information does not obviate the requirement for rational design of the roof deck and roof deck attachment in accordance with FBC requirements.

|               | Assembly System Numbers and Definitions  |  |  |  |  |  |  |
|---------------|--|--|--|--|--|--|--|
| <u>C-A-#</u>  | Assemblies with All Layers Adhered over Concrete Deck (New or Existing)  |  |  |  |  |  |  |
| <u>C-AM-#</u> | Assemblies with Adhered Membranes over Fastened Insulation over Concrete Deck (New, Existing, or Recover)      |  |  |  |  |  |  |
| <u>C-M-#</u>  | Mechanically Fastened Assemblies over Concrete Deck (New, Existing, or Recover)                                |  |  |  |  |  |  |
| <u>CW-A-#</u> | Assemblies with All Layers Adhered over Cementitious Wood Fiber Deck (New or Existing)                         |  |  |  |  |  |  |
| CW-AM-#       | Assemblies with Adhered Membranes over Fastened Insulation over Cementitious Wood Fiber Deck (New or Existing) |  |  |  |  |  |  |
| <u>G-A-#</u>  | Assemblies with All Layers Adhered over Gypsum Deck (Existing)   |  |  |  |  |  |  |
| LC-A-#        | Lightweight Concrete Assemblies with All Layers Adhered over Concrete Deck (New or Existing)                   |  |  |  |  |  |  |
| LC-M-#        | Mechanically Fastened Lightweight Concrete Assemblies over Concrete Deck (New or Existing)                     |  |  |  |  |  |  |
| LS-M-#        | Mechanically Fastened Lightweight Concrete Assemblies over Steel Deck (New or Existing)                        |  |  |  |  |  |  |
| <u>R-A-#</u>  | Recover Assemblies with All Layers Adhered   |  |  |  |  |  |  |
| S-AM-#        | Assemblies with Adhered Membranes over Fastened Insulation over Steel Deck (New, Existing, or Recover)         |  |  |  |  |  |  |
| <u>S-M-#</u>  | Mechanically Fastened Assemblies over Steel Deck (New, Existing, or Recover)                                   |  |  |  |  |  |  |
| <u>W-M-#</u>  | Mechanically Fastened Assemblies over Wood Deck (New or Existing)  |  |  |  |  |  |  |

|               | Assemblies with All Layers Adhered over Concrete Deck (New or Existing) |  |                                       |   |                                       |            |                   |  |  |  |
|---------------|---|--|---------------------------------------|---|---------------------------------------|------------|-------------------|--|--|--|
| System<br>No. | Primer  | Base Insulation                                    | Base<br>Insulation<br>Attachment      | Top Insulation  | Top Insulation<br>Attachment          | Roof Cover | MDP<br>(psf)      |  |  |  |
| C-A-1         | ASTM D 41   | Min. 1.5-inch <i>ISO</i>                           | ASTM D 312,<br>Type IV hot<br>asphalt | OPTIONAL Min. 1-inch EnergyGuard Perlite, EnergyGuard Perlite Recover or Fesco Board or Min. 1/2-inch EnergyGuard High Density Fiberboard | ASTM D 312,<br>Type IV hot<br>asphalt | BUR        | -45<br>(Lim. 9)   |  |  |  |
| C-A-2         | -   | Min 1.5-inch,<br>min. 1.25 pcf ASTM C578 EPS board | CR-20                                 | DensDeck, DensDeck Prime or<br>SECUROCK   | CR-20                                 | BUR        | -87.5<br>(Lim. 9) |  |  |  |
| C-A-3         | -   | -  | -                                     | -   | -                                     | BUR        | -90<br>(Lim. 9)   |  |  |  |

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**APPENDIX B** 

|               | Assemblies with All Layers Adhered over Concrete Deck (New or Existing) |   |                                       |  |                                       |            |                    |  |  |
|---------------|---|---|---------------------------------------|--|---------------------------------------|------------|--------------------|--|--|
| System<br>No. | Primer  | Base Insulation                                   | Base<br>Insulation<br>Attachment      | Top Insulation   | Top Insulation<br>Attachment          | Roof Cover | MDP<br>(psf)       |  |  |
| C-A-4         | ASTM D 41   | Min. 1.5-inch ISO                                 | ASTM D 312,<br>Type IV hot<br>asphalt | Min. 3/4-inch Fesco Board  | ASTM D 312,<br>Type IV hot<br>asphalt | BUR        | -90<br>(Lim. 9)    |  |  |
| C-A-5         | -   | Min. 1.5-inch ISO                                 | -                                     | Min 1-inch EnergyGuard Perlite<br>or Fesco Board   | ASTM D 312,<br>Type IV hot<br>asphalt | BUR        | -90<br>(Lim. 9)    |  |  |
| C-A-6         | -   | -   | -                                     | -  | -                                     | BUR        | -90<br>(Lim. 9)    |  |  |
| C-A-7         | OPTIONAL<br>ASTM D 41   | OPTIONAL<br>Min. 1.5-inch ISO 95+ GL or ACFoam II | Insta-Stik                            | Min. 1/2-inch Structodek High Density Fiberboard; DensDeck or SECUROCK                                     | Insta-Stik                            | BUR        | -112.5<br>(Lim. 9) |  |  |
| C-A-8         | OPTIONAL<br>ASTM D 41   | OPTIONAL<br>Min. 1.5-inch <i>ISO II</i>           | CR-20                                 | Min. 1/2-inch Structodek High Density<br>Fiberboard; <i>DensDeck; DensDeck Prime</i><br>or <i>SECUROCK</i> | CR-20                                 | BUR        | -117.5<br>(Lim. 9) |  |  |
| C-A-9         | ASTM D 41   | OPTIONAL<br>Min. 1.5-inch <i>ISO I</i>            | OB500                                 | DensDeck or SECUROCK   | OB500                                 | BUR        | -120<br>(Lim. 9)   |  |  |
| C-A-10        | ASTM D 41   | -   | -                                     | Min. 3/4-inch Fesco Board  | OB500                                 | BUR        | -120<br>(Lim. 9)   |  |  |
| C-A-11        | OPTIONAL<br>ASTM D 41   | OPTIONAL<br>Min. 1.5-inch <i>ISO I</i>            | OSFA                                  | Min. 1/2-inch Structodek High Density<br>Fiberboard  | OSFA                                  | BUR        | -127.5<br>(Lim. 9) |  |  |
| C-A-12        | -   | OPTIONAL<br>Min. 1.5-inch <i>ISO I</i>            | OB500                                 | DensDeck or SECUROCK   | OB500                                 | BUR        | -10<br>(Lim. 9)    |  |  |
| C-A-13        | ASTM D 41   | OPTIONAL<br>Min. 1.5-inch <i>ISO I</i>            | OSFA                                  | DensDeck or SECUROCK   | OSFA                                  | BUR        | -157.5<br>(Lim. 9) |  |  |
| C-A-14        | ASTM D 41   | -   | -                                     | -  | -                                     | BUR        | -177.5<br>(Lim. 9) |  |  |
| C-A-15        | -   | Min 1.5-inch,<br>min. 1.5 pcf ASTM C578 EPS board | CR-20                                 | DensDeck, DensDeck Prime or<br>SECUROCK  | CR-20                                 | BUR        | -180<br>(Lim. 9)   |  |  |
| C-A-16        | ASTM D 41   | OPTIONAL<br>Min. 2-inch <i>ISO</i>                | ASTM D 312,<br>Type IV hot<br>asphalt | Min. 1/2-inch Structodek High Density<br>Fiberboard  | ASTM D 312,<br>Type IV hot<br>asphalt | BUR        | -187.5<br>(Lim. 9) |  |  |
| C-A-17        | OPTIONAL<br>ASTM D 41   | OPTIONAL<br>Min. 1.5-inch /SO //                  | CR-20                                 | Min. 1/2-inch Structodek High Density<br>Fiberboard  | CR-20                                 | BUR        | -187.5<br>(Lim. 9) |  |  |
| C-A-18        | ASTM D 41   | OPTIONAL<br>Min. 2-inch <i>ISO</i>                | ASTM D 312,<br>Type IV hot<br>asphalt | Min. 3/4-inch Fesco Board  | ASTM D 312,<br>Type IV hot<br>asphalt | BUR        | -232.5<br>(Lim. 9) |  |  |
| C-A-19        | -   | OPTIONAL<br>Min. 1.5-inch /SO /                   | OSFA                                  | DensDeck or SECUROCK   | OSFA                                  | BUR        | -232.5<br>(Lim. 9) |  |  |
| C-A-20        | -   | -   | -                                     | Min. 3/4-inch Fesco Board  | OB500                                 | BUR        | -232.5<br>(Lim. 9) |  |  |

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This evaluation report is provided for State of Florida product approval under Rule 61G20-3. The manufacturer shall notify CREEK Technical Services, LLC of any product changes or quality assurance changes throughout the duration for which this report is valid. This evaluation report does not express nor imply warranty, installation, recommended use, or other product attributes that are not specifically addressed herein.

**APPENDIX B** 

|               | Assemblies with All Layers Adhered over Concrete Deck (New or Existing) |   |                                       |   |                                       |   |                    |  |  |  |
|---------------|---|---|---------------------------------------|---|---------------------------------------|---|--------------------|--|--|--|
| System<br>No. | Primer  | Base Insulation                                   | Base<br>Insulation<br>Attachment      | Top Insulation                          | Top Insulation<br>Attachment          | Roof Cover                                    | MDP<br>(psf)       |  |  |  |
| C-A-21        | -   | Min 1.5-inch,<br>min. 2.0 pcf ASTM C578 EPS board | CR-20                                 | DensDeck, DensDeck Prime or<br>SECUROCK | CR-20                                 | BUR   | -240<br>(Lim. 9)   |  |  |  |
| C-A-22        | OPTIONAL<br>ASTM D 41   | OPTIONAL<br>Min. 1.5-inch <i>ISO II</i>           | CR-20                                 | DensDeck; DensDeck Prime or<br>SECUROCK | CR-20                                 | BUR   | -262.5<br>(Lim. 9) |  |  |  |
| C-A-23        | ASTM D 41   | -   | -                                     | -                                       | -                                     | BUR   | -267.5<br>(Lim. 9) |  |  |  |
| C-A-24        | ASTM D 41   | OPTIONAL<br>Min. 2-inch <i>ISO</i>                | ASTM D 312,<br>Type IV hot<br>asphalt | DensDeck, DensDeck Prime or<br>SECUROCK | ASTM D 312,<br>Type IV hot<br>asphalt | BUR<br>(Not with<br>USP Mineral<br>Cap Sheet) | -302.5<br>(Lim. 9) |  |  |  |

|               | Assemblies with Adhered Membranes over Fastened Insulation over Concrete Deck (New, Existing, or Recover) |   |  |  |            |                 |  |  |  |
|---------------|---|---|--|--|------------|-----------------|--|--|--|
| System<br>No. | Base Insulation   | Base Attachment   | Top Insulation   | Top Attachment   | Roof Cover | MDP<br>(psf)    |  |  |  |
| C-AM-1        | Insulation  | Simultaneously secured with top layer                           | Min. 3/4-inch Fesco Board  | CD Fasteners and Plates at a rate of 1 per 2 ft <sup>2</sup> | BUR        | -30<br>(Lim. 9) |  |  |  |
| C-AM-2        | Insulation  | Simultaneously secured with top layer                           | DensDeck or DensDeck Prime   | CD Fasteners and Plates at a rate of 1 per 2 ft <sup>2</sup> | BUR        | -45<br>(Lim. 9) |  |  |  |
| C-AM-3        | Insulation  | Simultaneously secured with top layer                           | SECUROCK or<br>Min. 1-inch Structodek High Density Fiberboard  | CD Fasteners and Plates at a rate of 1 per 4 ft <sup>2</sup> | BUR        | -45<br>(Lim. 9) |  |  |  |
| C-AM-4        | Min. 1.5-inch Composite   | Insulation Fasteners at a rate of 1 per 2 ft <sup>2</sup>       | OPTIONAL Min. 3/4-inch EnergyGuard Perlite or Fesco Board  | ASTM D 312, Type IV<br>hot asphalt                           | BUR        | -45<br>(Lim. 9) |  |  |  |
| C-AM-5        | Min. 1.5-inch Composite   | CD Fasteners and Plates<br>at a rate of 1 per 2 ft <sup>2</sup> | OPTIONAL  DensDeck; DensDeck Prime or SECUROCK;  Min. 1/2-inch Structodek High Density Fiberboard;  Min. 1.5-inch ISO 95+ GL or ACFoam II followed by  min. 3/4-inch Fesco Board | ASTM D 312, Type IV<br>hot asphalt                           | BUR        | -45<br>(Lim. 9) |  |  |  |
| C-AM-6        | Min. 1.5-inch ISO over OPTIONAL Preliminarily Secured Min. 3/4-inch EnergyGuard Perlite or Fesco Board    | Insulation Fasteners<br>at a rate of 1 per 2 ft <sup>2</sup>    | Min. 1/2-inch EnergyGuard Perlite or Fesco Board   | ASTM D 312, Type IV<br>hot asphalt                           | BUR        | -45<br>(Lim. 9) |  |  |  |

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**APPENDIX B** 

|               | Assemblies w   | rith Adhered Membranes   | over Fastened Insulation over Concrete Deck   | (New, Existing, or Reco  | over)      |                   |
|---------------|--|--|---|--|------------|-------------------|
| System<br>No. | Base Insulation  | Base Attachment  | Top Insulation  | Top Attachment   | Roof Cover | MDP<br>(psf)      |
| C-AM-7        | Min. 1.5-inch ISO<br>over<br>OPTIONAL<br>Min. 3/4-inch<br>Fesco Board or<br>Min. 5/8-inch DensDeck | CD Fasteners and Plates at a rate of 1 per 2 ft <sup>2</sup>                                       | DensDeck; DensDeck Prime or SECUROCK;<br>Min. 3/4-inch Fesco Board;<br>Min. 1/2-inch Structodek High Density Fiberboard | ASTM D 312, Type IV<br>hot asphalt                             | BUR        | -45<br>(Lim. 9)   |
| C-AM-8        | Min. 1.5-inch<br>ISO 95+ GL  | Firestone All-Purpose<br>Fastener and<br>Hexagonal Plate<br>at a rate of 1 per 3.2 ft <sup>2</sup> | DensDeck or<br>Min. 3/4-inch EnergyGuard Perlite or Fesco Board   | ASTM D 312, Type IV<br>hot asphalt                             | BUR        | -45<br>(Lim. 9)   |
| C-AM-9        | Min. 2-inch<br>ISO 95+ GL  | Firestone All-Purpose<br>Fastener and<br>Hexagonal Plate<br>at a rate of 1 per 4 ft <sup>2</sup>   | DensDeck or<br>Min. 3/4-inch EnergyGuard Perlite or Fesco Board   | ASTM D 312, Type IV<br>hot asphalt                             | BUR        | -45<br>(Lim. 9)   |
| C-AM-10       | Min. 1.5-inch Composite  | Simultaneously secured with top layer  | Min. 3/4-inch EnergyGuard Perlite or Fesco Board  | Insulation Fasteners<br>at a rate of 1 per 2 ft <sup>2</sup>   | BUR        | -45<br>(Lim. 9)   |
| C-AM-11       | Min. 1.5-inch ISO<br>over<br>OPTIONAL<br>Min. 3/4-inch<br>Fesco Board or<br>Min. 5/8-inch DensDeck | CD Fasteners and Plates at a rate of 1 per 2 ft <sup>2</sup>                                       | DensDeck, DensDeck Prime or SECUROCK  | <i>OB500</i> or <i>CR-20</i>                                   | BUR        | -45<br>(Lim. 9)   |
| C-AM-12       | Min. 2-inch ISO<br>over<br>OPTIONAL<br>Min. 3/4-inch<br>Fesco Board or<br>Min. 5/8-inch DensDeck   | CD Fasteners and Plates at a rate of 1 per 4 ft <sup>2</sup>                                       | DensDeck or SECUROCK;<br>Min. 3/4-inch Fesco Board  | <i>OB500</i> or <i>CR-20</i>                                   | BUR        | -45<br>(Lim. 9)   |
| C-AM-13       | Insulation   | Simultaneously secured with top layer  | Min. 1/2-inch SECUROCK  | CD Fasteners and Plates at a rate of 1 per 1.8 ft <sup>2</sup> | BUR        | -60<br>(Lim. 7)   |
| C-AM-14       | Min. 2-inch ISO<br>over<br>OPTIONAL<br>Min. 3/4-inch<br>Fesco Board or<br>Min. 5/8-inch DensDeck   | HD Fasteners and Plates at a rate of 1 per 1.6 ft <sup>2</sup>                                     | DensDeck, DensDeck Prime or SECUROCK;<br>Min. 3/4-inch Fesco Board;<br>Min. 1/2-inch Structodek High Density Fiberboard | ASTM D 312, Type IV<br>hot asphalt                             | BUR        | -67.5<br>(Lim. 7) |

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**APPENDIX B** 

|               |  | Mechanically Fastene  | d Assemblies ov | ver Concrete Deck (New, Existing, or Recover)   |            |                  |
|---------------|--|---|-----------------|---|------------|------------------|
| System<br>No. | Base Insulation  | Top Insulation  | Base Sheet      | Base Sheet Attachment   | Roof Cover | MDP<br>(psf)     |
| C-M-1         | Min. 3/4-inch<br>EnergyGuard Perlite or<br>Fesco Board | Min. 1.5-inch<br>ACFoam II, ISO 95+ GL<br>or Multi-Max FA-3 | USP Base        | Fasteners and Plates spaced 18-inch o.c. in the lap and in one (1) row in the center of the sheet   | BUR        | -45<br>(Lim. 9)  |
| C-M-2         | Insulation   | -   | USP Base        | HD Fasteners and Plates spaced 6-inch o.c. in the lap<br>and 12-inch o.c. in two (2) equally spaced, staggered rows<br>in the center of the sheet | BUR        | -60<br>(Lim. 7)  |
| C-M-3         | Insulation   | -   | USP Base        | HD Fasteners and Plates spaced 6-inch o.c. in the lap and 6-inch o.c. in two (2) equally spaced, staggered rows in the center of the sheet        | BUR        | -135<br>(Lim. 7) |

|               | Assembl                               | ies with All Layers              | s Adhered over Cementitious Wood Fiber Deck (New o                                | r Existing)                     |            |                   |
|---------------|---------------------------------------|----------------------------------|---|---------------------------------|------------|-------------------|
| System<br>No. | Base Insulation                       | Base<br>Insulation<br>Attachment | Top Insulation  | Top<br>Insulation<br>Attachment | Roof Cover | MDP<br>(psf)      |
| CW-A-1        | OPTIONAL<br>Min. 2-inch <i>ISO II</i> | OB500                            | DensDeck Prime or SECUROCK or<br>Min. 1/2-inch Structodek High Density Fiberboard | OB500                           | BUR        | -45<br>(Lim. 9)   |
| CW-A-2        | OPTIONAL<br>Min. 2-inch <i>ISO II</i> | CR-20                            | DensDeck Prime or SECUROCK or Min. 1/2-inch Structodek High Density Fiberboard    | CR-20                           | BUR        | -52.5<br>(Lim. 9) |

|               | Assemblie              | s with Adhered Membranes over Fa  | stened Insulation over Cementitious Wood Fil  | ber Deck (New or E                                    | xisting)   |                 |
|---------------|------------------------|---|---|---|------------|-----------------|
| System<br>No. | Base Insulation        | Base Attachment   | Top Insulation  | Top Attachment  | Roof Cover | MDP<br>(psf)    |
| CW-AM-1       | Min. 1-5-inch<br>ISO I | OMG Polmer GypTec and<br>Polymer GypTec Plate<br>or TRUFAST TL with TL 3" Plate<br>at a rate of 1 per 4 ft <sup>2</sup> | DensDeck Prime or SECUROCK;<br>Min. 3/4-inch Fesco Board;<br>Min. 1/2-inch Structodek High Density Fiberboard | ASTM D 312, Type<br>IV hot asphalt,<br>OB500 or CR-20 | BUR        | -45<br>(Lim. 9) |
| CW-AM-2       | Min. 1-5-inch<br>ISO I | TRUFAST Twin Loc-Nail Assembled<br>Fastener at a rate of 1 per 2 ft <sup>2</sup>  | DensDeck Prime or SECUROCK;<br>Min. 3/4-inch Fesco Board;<br>Min. 1/2-inch Structodek High Density Fiberboard | ASTM D 312, Type<br>IV hot asphalt,<br>OB500 or CR-20 | BUR        | -45<br>(Lim. 9) |

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**APPENDIX B** 

|               | Assemblie                                  | es with All Layers               | Adhered over Gypsum Deck (Existing)                 |                              |            |                    |
|---------------|--|----------------------------------|---|------------------------------|------------|--------------------|
| System<br>No. | Base Insulation                            | Base<br>Insulation<br>Attachment | Top Insulation                                      | Top Insulation<br>Attachment | Roof Cover | MDP<br>(psf)       |
| G-A-1         | Min. 1.5-inch, min. 1.25 pcf ASTM C578 EPS | CR-20                            | DensDeck, DensDeck Prime or SECUROCK                | CR-20                        | BUR        | -87.5<br>(Lim. 9)  |
| G-A-2         | Min. 1.5-inch, min. 1.5 pcf ASTM C578 EPS  | CR-20                            | DensDeck, DensDeck Prime or SECUROCK                | CR-20                        | BUR        | -180<br>(Lim. 9)   |
| G-A-3         | OPTIONAL<br>Min. 1.5-inch <i>ISO II</i>    | CR-20                            | Min. 1/2-inch<br>Structodek High Density Fiberboard | CR-20                        | BUR        | -187.5<br>(Lim. 9) |
| G-A-4         | Min. 1.5-inch, min. 2.0 pcf ASTM C578 EPS  | CR-20                            | DensDeck, DensDeck Prime or SECUROCK                | CR-20                        | BUR        | -240<br>(Lim. 9)   |
| G-A-5         | OPTIONAL<br>Min. 1.5-inch /SO I/           | CR-20                            | DensDeck, DensDeck Prime or SECUROCK                | CR-20                        | BUR        | -257.5<br>(Lim. 9) |

|               | Light   | weight Concrete Assemb                             | lies with All La                 | yers Adhered over Concrete Deck (New   | or Existing)                    |            |                   |
|---------------|---|--|----------------------------------|--|---------------------------------|------------|-------------------|
| System<br>No. | LWIC  | Base Insulation                                    | Base<br>Insulation<br>Attachment | Top Insulation   | Top<br>Insulation<br>Attachment | Roof Cover | MDP<br>(psf)      |
| LC-A-1        | Min. 200 psi Celcore,<br>Elastizell or Mearlcrete | Min. 1.5-inch, min. 1.25 pcf<br>ASTM C578 EPS      | CR-20                            | DensDeck, DensDeck Prime or SECUROCK   | CR-20                           | BUR        | -87.5<br>(Lim. 9) |
| LC-A-2        | Min. 200 psi Celcore,<br>Elastizell or Mearlcrete | OPTIONAL<br>Min. 2-inch <i>ISO II</i>              | CR-20                            | DensDeck Prime or SECUROCK;<br>Min. 1/2-inch<br>Structodek High Density Fiberboard | CR-20                           | BUR        | -180<br>(Lim. 9)  |
| LC-A-3        | Min. 200 psi Celcore,<br>Elastizell or Mearlcrete | Min. 1.5-inch, min. 1.5 pcf<br>ASTM C578 EPS board | CR-20                            | DensDeck, DensDeck Prime or SECUROCK   | CR-20                           | BUR        | -180<br>(Lim. 9)  |

|               | Mech  | anically Fastene | d Lightweight Concrete Assemblies over Concrete Deck (New or Existing)   |              |                 |
|---------------|---|------------------|--|--------------|-----------------|
| System<br>No. | LWIC Base Sheet Base Sheet Attachment             |                  | Roof Cover   | MDP<br>(psf) |                 |
| LC-M-1        | Min. 300 psi Celcore,<br>Elastizell or Mearlcrete | USP Base         | TRUFAST Twin Loc-Nail Assembled Fastener 9-inch o.c. in the lap and 9-inch o.c. in two (2) equally spaced rows and staggered in the field of the sheet | BUR          | -60<br>(Lim. 7) |

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**APPENDIX B** 

|               |                | Mechanica  | lly Fastened L | ightweight Concrete Assemblies over Steel Deck (New or Existing)   |            |                 |
|---------------|----------------|--|----------------|--|------------|-----------------|
| System<br>No. | Deck<br>Detail | LWIC   | Base Sheet     | Base Sheet Attachment  | Roof Cover | MDP<br>(psf)    |
| LS-M-1        | G40, L6        | Min. 300 psi<br>Celcore, Elastizell or<br>Mearlcrete | USP Base       | TRUFAST Twin Loc-Nail Assembled Fastener 9-inch o.c. in the lap and 9-inch o.c. in two (2) equally spaced rows and staggered in the field of the sheet | BUR        | -60<br>(Lim. 7) |

|               |                          |  | Recover Asse                          | mblies with All Layers Adhered  |                                       |            |                    |
|---------------|--------------------------|--|---------------------------------------|---|---------------------------------------|------------|--------------------|
| System<br>No. | Existing Roof            | Base Insulation                                    | Base<br>Insulation<br>Attachment      | Top Insulation  | Top<br>Insulation<br>Attachment       | Roof Cover | MDP<br>(psf)       |
| R-A-1         | BUR or mineral cap sheet | Min 1.5-inch, min. 1.25 pcf<br>ASTM C578 EPS board | CR-20                                 | DensDeck, DensDeck Prime or SECUROCK  | CR-20                                 | BUR        | -87.5<br>(Lim. 9)  |
| R-A-2         | BUR or mineral cap sheet | Min. 1.5-inch ISO                                  | ASTM D 312,<br>Type IV hot<br>asphalt | Min. 3/4-inch Fesco Board   | ASTM D 312,<br>Type IV hot<br>asphalt | BUR        | -90<br>(Lim. 9)    |
| R-A-3         | BUR or mineral cap sheet | OPTIONAL<br>Min. 1.5-inch <i>ISO II</i>            | CR-20                                 | DensDeck, DensDeck Prime or SECUROCK;<br>Min. 1/2-inch Structodek High Density Fiberboard | CR-20                                 | BUR        | -117.5<br>(Lim. 9) |
| R-A-4         | BUR or mineral cap sheet | OPTIONAL<br>Min. 1.5-inch <i>ISO I</i>             | OB500                                 | DensDeck or SECUROCK  | OB500                                 | BUR        | -120<br>(Lim. 9)   |
| R-A-5         | BUR or mineral cap sheet | -  | -                                     | Min. 3/4-inch Fesco Board   | OB500                                 | BUR        | -120<br>(Lim. 9)   |
| R-A-6         | BUR or mineral cap sheet | OPTIONAL<br>Min. 1.5-inch /SO /                    | OSFA                                  | Min. 1/2-inch Structodek High Density Fiberboard  | OSFA                                  | BUR        | -127.5<br>(Lim. 9) |
| R-A-7         | BUR or mineral cap sheet | OPTIONAL<br>Min. 1.5-inch <i>ISO I</i>             | OSFA                                  | DensDeck or SECUROCK  | OSFA                                  | BUR        | -157.5<br>(Lim. 9) |
| R-A-8         | BUR or mineral cap sheet | Min 1.5-inch, min. 1.5 pcf<br>ASTM C578 EPS board  | CR-20                                 | DensDeck, DensDeck Prime or SECUROCK  | CR-20                                 | BUR        | -180<br>(Lim. 9)   |
| R-A-9         | BUR or mineral cap sheet | OPTIONAL<br>Min. 2-inch /SO                        | ASTM D 312,<br>Type IV hot<br>asphalt | Min. 1/2-inch Structodek High Density Fiberboard  | ASTM D 312,<br>Type IV hot<br>asphalt | BUR        | -187.5<br>(Lim. 9) |
| R-A-10        | BUR or mineral cap sheet | OPTIONAL<br>Min. 1.5-inch <i>ISO II</i>            | CR-20                                 | Min. 1/2-inch Structodek High Density Fiberboard  | CR-20                                 | BUR        | -187.5<br>(Lim. 9) |
| R-A-11        | BUR or mineral cap sheet | OPTIONAL<br>Min. 2-inch <i>ISO</i>                 | ASTM D 312,<br>Type IV hot<br>asphalt | Min. 3/4-inch Fesco Board   | ASTM D 312,<br>Type IV hot<br>asphalt | BUR        | -232.5<br>(Lim. 9) |
| R-A-12        | BUR or mineral cap sheet | Min 1.5-inch, min. 2.0 pcf<br>ASTM C578 EPS board  | CR-20                                 | DensDeck, DensDeck Prime or SECUROCK  | CR-20                                 | BUR        | -240<br>(Lim. 9)   |

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**APPENDIX B** 

|               | Recover Assemblies with All Layers Adhered |   |                                       |                                      |                                       |   |                    |  |  |  |
|---------------|--|---|---------------------------------------|--------------------------------------|---------------------------------------|---|--------------------|--|--|--|
| System<br>No. | Existing Roof                              | Base Insulation                         | Base<br>Insulation<br>Attachment      | Top Insulation                       | Top<br>Insulation<br>Attachment       | Roof Cover                                    | MDP<br>(psf)       |  |  |  |
| R-A-13        | BUR or mineral cap sheet                   | OPTIONAL<br>Min. 1.5-inch <i>ISO II</i> | CR-20                                 | DensDeck, DensDeck Prime or SECUROCK | CR-20                                 | BUR   | -262.5<br>(Lim. 9) |  |  |  |
| R-A-14        | BUR or mineral cap sheet                   | OPTIONAL<br>Min. 2-inch /SO             | ASTM D 312,<br>Type IV hot<br>asphalt | DensDeck, DensDeck Prime or SECUROCK | ASTM D 312,<br>Type IV hot<br>asphalt | BUR<br>(Not with<br>USP Mineral<br>Cap Sheet) | -302.5<br>(Lim. 9) |  |  |  |

|               |                | Assemblies with  | n Adhered Membranes  | over Fastened Insulation over Steel Deck (N  | lew, Existing, or <i>Recove</i>                              | er)        |                 |
|---------------|----------------|--|--|--|--|------------|-----------------|
| System<br>No. | Deck<br>Detail | Base Insulation  | Base Insulation<br>Attachment                                    | Top Insulation   | Top Insulation<br>Attachment                                 | Roof Cover | MDP<br>(psf)    |
| S-AM-1        | G40, L5        | Insulation   | Simultaneously secured with top layer                            | Min. 3/4-inch Fesco Board  | SD Fasteners and Plates at a rate of 1 per 2 ft <sup>2</sup> | BUR        | -30<br>(Lim. 9) |
| S-AM-2        | G40, L5        | Insulation   | Simultaneously secured with top layer                            | DensDeck or DensDeck Prime   | SD Fasteners and Plates at a rate of 1 per 2 ft <sup>2</sup> | BUR        | -45<br>(Lim. 9) |
| S-AM-3        | G40, L5        | Insulation   | Simultaneously secured with top layer                            | SECUROCK or<br>Min. 1-inch Structodek High Density Fiberboard  | SD Fasteners and Plates at a rate of 1 per 4 ft <sup>2</sup> | BUR        | -45<br>(Lim. 9) |
| S-AM-4        | G40, L5        | Min. 1.5-inch<br>Composite   | Insulation Fasteners at a rate of 1 per 2 ft <sup>2</sup>        | OPTIONAL<br>Min. 3/4-inch EnergyGuard Perlite<br>or Fesco Board  | ASTM D 312, Type IV<br>hot asphalt                           | BUR        | -45<br>(Lim. 9) |
| S-AM-5        | G40, L5        | Min. 1.5-inch<br>Composite   | SD Fasteners and Plates at a rate of 1 per 2 ft <sup>2</sup>     | OPTIONAL  DensDeck, DensDeck Prime or SECUROCK;  Min. 1/2-inch Structodek High Density Fiberboard;  Min. 1.5-inch ISO 95+ GL or ACFoam II  followed by min. 3/4-inch Fesco Board | ASTM D 312, Type IV<br>hot asphalt                           | BUR        | -45<br>(Lim. 9) |
| S-AM-6        | G40, L5        | Min. 1.5-inch ISO over OPTIONAL Preliminarily Secured Min. 3/4-inch EnergyGuard Perlite or Fesco Board | <i>Insulation Fasteners</i> at a rate of 1 per 2 ft <sup>2</sup> | Min. 1/2-inch<br>EnergyGuard Perlite or Fesco Board  | ASTM D 312, Type IV<br>hot asphalt                           | BUR        | -45<br>(Lim. 9) |

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**APPENDIX B** 

|               |                | Assemblies with   | h Adhered Membranes  | over Fastened Insulation over Steel Deck (N   | lew, Existing, or Recove                                       | er)        |                   |
|---------------|----------------|---|--|---|--|------------|-------------------|
| System<br>No. | Deck<br>Detail | Base Insulation   | Base Insulation<br>Attachment  | Top Insulation  | Top Insulation<br>Attachment                                   | Roof Cover | MDP<br>(psf)      |
| S-AM-7        | G40, L5        | Min. 1.5-inch ISO over OPTIONAL Min. 3/4-inch Fesco Board or Min. 5/8-inch DensDeck | SD Fasteners and Plates at a rate of 1 per 2 ft <sup>2</sup>                                       | DensDeck; DensDeck Prime or SECUROCK;<br>Min. 3/4-inch Fesco Board;<br>Min. 1/2-inch Structodek High Density Fiberboard | ASTM D 312, Type IV<br>hot asphalt                             | BUR        | -45<br>(Lim. 9)   |
| S-AM-8        | G40, L5        | Min. 1.5-inch<br>ISO 95+ GL   | Firestone All-Purpose<br>Fastener and<br>Hexagonal Plate<br>at a rate of 1 per 3.2 ft <sup>2</sup> | <i>DensDeck</i> or<br>Min. 3/4-inch<br>EnergyGuard Perlite or Fesco Board   | ASTM D 312, Type IV<br>hot asphalt                             | BUR        | -45<br>(Lim. 9)   |
| S-AM-9        | G40, L5        | Min. 2-inch ISO<br>95+ GL   | Firestone All-Purpose<br>Fastener and<br>Hexagonal Plate<br>at a rate of 1 per 4 ft <sup>2</sup>   | <i>DensDeck</i> or<br>Min. 3/4-inch<br>EnergyGuard Perlite or Fesco Board   | ASTM D 312, Type IV<br>hot asphalt                             | BUR        | -45<br>(Lim. 9)   |
| S-AM-10       | G40, L5        | Min. 1.5-inch<br>Composite  | Simultaneously secured with top layer  | Min. 3/4-inch<br>EnergyGuard Perlite or Fesco Board   | Insulation Fasteners at a rate of 1 per 2 ft <sup>2</sup>      | BUR        | -45<br>(Lim. 9)   |
| S-AM-11       | G40, L5        | Min. 1.5-inch ISO over OPTIONAL Min. 3/4-inch Fesco Board or Min. 5/8-inch DensDeck | SD Fasteners and Plates at a rate of 1 per 2 ft <sup>2</sup>                                       | DensDeck, DensDeck Prime or SECUROCK  | OB500 or CR-20   | BUR        | -45<br>(Lim. 9)   |
| S-AM-12       | G40, L5        | Min. 2-inch ISO over OPTIONAL Min. 3/4-inch Fesco Board or Min. 5/8-inch DensDeck   | SD Fasteners and Plates at a rate of 1 per 4 ft <sup>2</sup>                                       | <i>DensDeck</i> or <i>SECUROCK;</i><br>Min. 3/4-inch Fesco Board  | <i>OB500</i> or <i>CR-20</i>                                   | BUR        | -45<br>(Lim. 9)   |
| S-AM-13       | G40, L6        | Insulation  | Simultaneously secured with top layer  | Min. 1/2-inch SECUROCK  | SD Fasteners and Plates at a rate of 1 per 1.8 ft <sup>2</sup> | BUR        | -60<br>(Lim. 7)   |
| S-AM-14       | G40, L6        | Min. 2-inch ISO over OPTIONAL Min. 3/4-inch Fesco Board or Min. 5/8-inch DensDeck   | HD Fasteners and Plates at a rate of 1 per 1.6 ft <sup>2</sup>                                     | DensDeck, DensDeck Prime or SECUROCK;<br>Min. 3/4-inch Fesco Board;<br>Min. 1/2-inch Structodek High Density Fiberboard | ASTM D 312, Type IV<br>hot asphalt                             | BUR        | -67.5<br>(Lim. 7) |

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**APPENDIX B** 

|               |                | Mecha  | anically Fastened A  | ssemblies ov  | ver Steel Deck (New, Existing, or Recover)  |            |                  |
|---------------|----------------|--|----------------------|---------------|---|------------|------------------|
| System<br>No. | Deck<br>Detail | Base Insulation  | Top Insulation       | Base<br>Sheet | Base Sheet Attachment   | Roof Cover | MDP<br>(psf)     |
| S-M-1         | G40, L5        | Min. 3/4-inch<br>EnergyGuard Perlite<br>or Fesco Board | Min. 1.5-inch<br>ISO | USP Base      | Fasteners and Plates spaced 18-inch o.c. in the lap and in one (1) row in the center of the sheet   | BUR        | -45<br>(Lim. 9)  |
| S-M-2         | G40, L6        | Insulation   | -                    | USP Base      | HD Fasteners and Plates spaced 6-inch o.c. in the lap and 12-inch o.c. in two (2) equally spaced, staggered rows in the center of the sheet | BUR        | -60<br>(Lim. 7)  |
| S-M-3         | G40, L6        | Insulation   | -                    | USP Base      | HD Fasteners and Plates spaced 6-inch o.c. in the lap and 6-inch o.c. in two (2) equally spaced, staggered rows in the center of the sheet  | BUR        | -135<br>(Lim. 7) |

| Mechanically Fastened Assemblies over Wood Deck (New or Existing) |                           |                    |                   |            |   |            |                 |
|---|---------------------------|--------------------|-------------------|------------|---|------------|-----------------|
| System<br>No.   | Deck Detail               | Base<br>Insulation | Top<br>Insulation | Base Sheet | Base Sheet Attachment   | Roof Cover | MDP<br>(psf)    |
| W-M-1   | T19/32, L24,<br>0.113-6/6 | -                  | -                 | USP Base   | 12 ga. x 1-1/4-inch ring shank nails and 32 ga. x 1-5/8-inch diameter tin caps fastened 8-inch o.c. along the lap and 8-inch o.c. in two (2) equal spaced and staggered rows in the field of the roll | BUR        | -60<br>(Lim. 7) |

#### **END OF REPORT**