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**EVALUATION REPORT**

**Johns Manville Corporation**

717 17<sup>th</sup> Street

Denver, CO 80202

**Evaluation Report J9340.07.08-R4**

**FL1046-R7**

**Date of Issuance: 07/08/2008**

**Revision 4: 04/28/2015**

**SCOPE:**

This Evaluation Report is issued under Rule 61G20-3 and the applicable rules and regulations governing the use of construction materials in the State of Florida. The documentation submitted has been reviewed by Robert Nieminen, P.E. for use of the product under the Florida Building Code. The product described herein has been evaluated for compliance with the 5<sup>th</sup> Edition (2014) Florida Building Code sections noted herein.

**DESCRIPTION: Johns Manville APP Modified Bitumen Roof Systems**

**LABELING:** Labeling shall be in accordance with the requirements the Accredited Quality Assurance Agency noted herein.

**CONTINUED COMPLIANCE:** This Evaluation Report is valid until such time as the named product(s) changes, the referenced Quality Assurance documentation changes, or provisions of the Code that relate to the product change. Acceptance of this Evaluation Report by the named client constitutes agreement to notify Robert Nieminen, P.E. if the product changes or the referenced Quality Assurance documentation changes. Trinity|ERD requires a complete review of this Evaluation Report relative to updated Code requirements with each Code Cycle.

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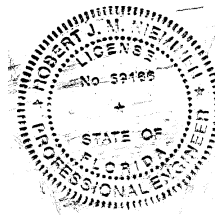
**INSPECTION:** Upon request, a copy of this entire Evaluation Report shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This Evaluation Report consists of pages 1 through 4, plus a 21-page Appendix.

**Prepared by:**

**Robert J.M. Nieminen, P.E.**

*Florida Registration No. 59166, Florida DCA ANE1983*



The facsimile seal appearing was authorized by Robert Nieminen, P.E. on 04/28/2015. This does not serve as an electronically signed document. Signed, sealed hardcopies have been transmitted to the Product Approval Administrator and to the named client

**CERTIFICATION OF INDEPENDENCE:**

1. Exterior Research & Design, LLC. d/b/a Trinity | ERD does not have, nor does it intend to acquire or will it acquire, a financial interest in any company manufacturing or distributing products it evaluates.
2. Exterior Research & Design, LLC. d/b/a Trinity | ERD is not owned, operated or controlled by any company manufacturing or distributing products it evaluates.
3. Robert Nieminen, P.E. does not have nor will acquire, a financial interest in any company manufacturing or distributing products for which the evaluation reports are being issued.
4. Robert Nieminen, P.E. does not have, nor will acquire, a financial interest in any other entity involved in the approval process of the product.
5. This is a building code evaluation. Neither Trinity|ERD nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this Evaluation Report, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.

**ROOFING SYSTEMS EVALUATION:**
**1. SCOPE:**

**Product Category:** Roofing  
**Sub-Category:** Modified Bitumen Roof Systems

**Compliance Statement:** Johns Manville APP Modified Bitumen Roof Systems, as produced by Johns Manville Corporation, have demonstrated compliance with the following sections of the Florida Building Code through testing in accordance with the following Standards. Compliance is subject to the Installation Requirements and Limitations / Conditions of Use set forth herein.

**2. STANDARDS:**

| <u>Section</u> | <u>Property</u>     | <u>Standard</u> | <u>Year</u> |
|----------------|---------------------|-----------------|-------------|
| 1504.3.1       | Wind                | FM 4474         | 2004        |
| 1504.7         | Impact              | FM 4470         | 1992        |
| 1507.11.2      | Physical Properties | ASTM D6164      | 2005        |
| 1507.11.2      | Physical Properties | ASTM D6222      | 2008        |
| 1507.11.2      | Physical Properties | ASTM D6223      | 2002        |
| 1507.11.2      | Physical Properties | ASTM D6509      | 2009        |

**3. REFERENCES:**

| <u>Entity</u>          | <u>Examination</u>  | <u>Reference</u>     | <u>Date</u>     |
|------------------------|---------------------|----------------------|-----------------|
| ERD (TST6049)          | FM 4470/4474        | J45020.05.13-1       | 05/16/2013      |
| ERD (TST6049)          | FM 4470/4474        | J45020.05.13-2       | 05/20/2013      |
| FM Approvals (TST1867) | FM 4470             | OW6A2.AM             | 02/05/1993      |
| FM Approvals (TST1867) | FM 4470             | OX7A4.AM             | 08/26/1993      |
| FM Approvals (TST1867) | FM 4470             | OX0A9.AM             | 03/25/1994      |
| FM Approvals (TST1867) | FM 4470             | 3001482              | 08/11/1998      |
| FM Approvals (TST1867) | FM 4470             | 3002823              | 04/01/1999      |
| FM Approvals (TST1867) | FM 4470             | 3003468              | 02/02/2000      |
| FM Approvals (TST1867) | FM 4470             | 3007148              | 04/19/2000      |
| FM Approvals (TST1867) | FM 4470             | 3009499              | 04/04/2001      |
| FM Approvals (TST1867) | FM 4470             | 3012974              | 06/03/2002      |
| FM Approvals (TST1867) | FM 4470             | 3012321              | 07/29/2002      |
| FM Approvals (TST1867) | FM 4470             | 3011248              | 11/01/2002      |
| FM Approvals (TST1867) | FM 4470             | 3014692              | 08/05/2003      |
| FM Approvals (TST1867) | FM 4470/4474        | 3023458              | 07/18/2006      |
| FM Approvals (TST1867) | FM 4470/4474        | 3026128              | 08/04/2006      |
| FM Approvals (TST1867) | FM 4470/4474        | 3024311              | 11/01/2006      |
| FM Approvals (TST1867) | FM 4470/4474        | 3028879              | 10/28/2007      |
| FM Approvals (TST1867) | FM 4470/4474        | 3034810              | 09/10/2009      |
| FM Approvals (TST1867) | FM 4470/4474        | 3037540              | 10/20/2010      |
| FM Approvals (TST1867) | FM 4470/4474        | 3040986              | 09/23/2011      |
| FM Approvals (TST1867) | FM 4470/4474        | 3046174              | 04/03/2013      |
| PRI (TST5878)          | Physical Properties | JMC-055-02-01        | 05/29/2012      |
| PRI (TST5878)          | Physical Properties | JMC-054-02-01.04.04  | 06/04/2012      |
| PRI (TST5878)          | Physical Properties | JMC-106-02-01        | 04/15/2013      |
| PRI (TST5878)          | FM 4470/4474        | JMC-108-02-01        | 04/16/2013      |
| PRI (TST5878)          | FM 4470/4474        | JMC-109-02-01        | 04/16/2013      |
| PRI (TST5878)          | FM 4470/4474        | JMC-114-02-01        | 04/16/2013      |
| PRI (TST5878)          | FM 4470/4474        | JMC-118-02-01        | 04/16/2013      |
| PRI (TST5878)          | FM 4470/4474        | JMC-126-02-01        | 04/17/2013      |
| PRI (TST5878)          | FM 4470/4474        | JMC-131-02-01        | 04/17/2013      |
| PRI (TST5878)          | Physical Properties | JMC-113-02-01        | 04/19/2013      |
| PRI (TST5878)          | FM 4470/4474        | JMC-118-02-02        | 04/19/2013      |
| PRI (TST5878)          | Physical Properties | JMC-053-02-01        | 05/01/2013      |
| PRI (TST5878)          | FM 4470/4474        | JMC-141-02-01        | 05/13/2013      |
| PRI (TST5878)          | Physical Properties | JMC-147-02-01        | 05/28/2013      |
| UL LLC (QUA9625)       | Quality Assurance   | Service Confirmation | Exp. 10/22/2016 |

#### 4. PRODUCT DESCRIPTION:

This Evaluation Report covers Johns Manville APP Modified Bitumen Roof Systems installed in accordance with Johns Manville published installation instructions and the Limitations / Conditions of Use herein. The following Johns Manville products make up the subject systems.

| TABLE 1: ROLL-GOODS FOR JOHNS MANVILLE APP MODIFIED BITUMEN ROOF SYSTEMS |                   |               |       |      |
|--|-------------------|---------------|-------|------|
| Type   | Product           | Specification |       |      |
|  |                   | Reference     | Grade | Type |
| Base / Ply Sheets  | JM APP Base       | ASTM D6509    | N/A   | N/A  |
|  | PermaPly 28       | ASTM D4601    | N/A   | II   |
|  | Ventsulation      | ASTM D4897    | N/A   | II   |
|  | GlasPly Premier   | ASTM D2178    | N/A   | VI   |
|  | GlasPly IV        | ASTM D4601    | N/A   | IV   |
|  | JM BaseGrip SD/SA | ASTM D4601    | N/A   | II   |
| SBS Base Membranes   | DynaFast 180 HW   | ASTM D6164    | S     | I    |
|  | DynaFast 250 HW   | ASTM D6164    | S     | II   |
| APP Membranes  | APPeX 4S          | ASTM D6222    | S     | I    |
|  | APPeX 4.5M        | ASTM D6222    | G     | I    |
|  | APPeX 4.5M FR     | ASTM D6222    | G     | I    |
|  | APPeX 4.5M FR CR  | ASTM D6222    | G     | I    |
|  | Tricor S          | ASTM D6223    | S     | II   |
|  | Tricor M FR       | ASTM D6223    | G     | II   |
|  | Tricor M FR CR    | ASTM D6223    | G     | II   |

#### 5. LIMITATIONS:

- 5.1 This is a building code evaluation. Neither Trinity|ERD nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this Evaluation Report, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.
- 5.2 This Evaluation Report is not for use in HVHZ.
- 5.3 Refer to a current Roofing Materials Directory for fire ratings of this product.
- 5.4 For steel deck installations, foam plastic insulation shall be separated from the building interior in accordance with FBC 2603.4 unless the exceptions stated in FBC 2603.4.1 and 2603.6 apply.
- 5.5 The roof system evaluation herein pertains to above-deck roof components. Roof decks and structural members shall be in accordance with FBC requirements to the satisfaction of the AHJ. Load resistance of the roof deck shall be documented through proper codified and/or FBC Approval documentation.
- 5.6 For recover installations, the existing roof shall be examined in accordance with FBC 1510.
- 5.7 For mechanically attached insulation or membrane or strip-bonded insulation, the maximum design pressure for the selected assembly shall meet or exceed the Zone 1 design pressure determined in accordance with FBC Chapter 16. Zones 2 and 3 shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria. Commonly used methods are RAS 117 and FM LPDS 1-29. Assemblies marked with an asterisk\* carry the limitations set forth in Section 2.2.1.5.1(a) of FM LPDS 1-29 for Zone 2/3 enhancements.
- 5.8 For assemblies where all components are fully adhered, the maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with FBC Chapter 16. No rational analysis is permitted for these systems.
- 5.9 For mechanically attached insulation or membrane over existing roof decks, fasteners shall be tested in the existing deck for withdrawal resistance. A qualified design professional shall review the data for comparison to the minimum requirements for the system. Testing and analysis shall be in accordance with TAS 105 or ANSI/SPRI FX-1.
- 5.10 For bonded insulation or membrane over existing substrates in a re-roof (tear off) or recover installation, the existing deck or existing roof surface shall be examined for compatibility with the adhesive to be installed. If any surface conditions exist that bring system performance into question, field uplift testing in accordance with ASTM E907, FM LPDS 1-52, ANSI/SPRI IA-1 or TAS 124 shall be conducted on mock-ups of the proposed new roof assembly.

- 5.11 For bonded insulation or membrane over existing substrates in a recover installation, the existing roof system shall be capable of resisting project design pressures on its own merit to the satisfaction of the AHJ, as documented through field uplift testing in accordance with ASTM E907, FM LPDS 1-52 or TAS 124.
- 5.12 Metal edge attachment (except gutters), shall be designed and installed for wind loads in accordance with FBC Chapter 16 and tested for resistance in accordance with ANSI/SPRI ES-1 or RAS 111, except the basic wind speed shall be determined from FBC Figure 1609.
- 5.13 All products in the roof assembly shall have quality assurance audit in accordance with the FBC and F.A.C. Rule 61G20-3.

**6. INSTALLATION:**

- 6.1 Johns Manville APP Modified Bitumen roof systems shall be installed in accordance with Johns Manville published installation instructions, subject to the Limitations / Conditions of Use noted below.
- 6.2 System attachment requirements for wind load resistance are set forth in Appendix 1. MDP" = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads, and reflects the ultimate passing pressure divided by 2 (the 2 to 1 margin of safety per FBC 1504.9 has already been applied). Refer to FBC 1609 for determination of design wind loads.

**7. BUILDING PERMIT REQUIREMENTS:**

As required by the Building Official or Authority Having Jurisdiction in order to properly evaluate the installation of this product.

**8. MANUFACTURING PLANTS:**

Contact the named QA entity for manufacturing facilities covered by F.A.C. Rule 61G20-3 QA requirements.

**9. QUALITY ASSURANCE ENTITY:**

UL LLC – QUA9625; (414) 248-6409; Karen.buchmann@us.ul.com

**- THE 21-PAGES THAT FOLLOW FORM PART OF THIS EVALUATION REPORT -**

**APPENDIX 1: ATTACHMENT REQUIREMENTS FOR WIND UPLIFT RESISTANCE**

| Table | Deck           | Application                     | Type | Description   | Page  |
|-------|----------------|---------------------------------|------|---|-------|
| 1A-1  | Wood           | New, Reroof (Tear-Off)          | A-2  | Mech. Attached Anchor Sheet, Bonded Insulation, Bonded Roof Cover         | 3     |
| 1A-2  | Wood           | New, Reroof (Tear-Off), Recover | A-2  | Mech. Attached Anchor Sheet, Bonded Insulation, Bonded Roof Cover         | 3     |
| 1B    | Wood           | New, Reroof (Tear-Off), Recover | B    | Mech. Attached Base Insulation, Bonded Top Insulation, Bonded Roof Cover  | 3     |
| 1C    | Wood           | New, Reroof (Tear-Off), Recover | C    | Mech. Attached Insulation, Bonded Roof Cover                              | 4     |
| 1D    | Wood           | New, Reroof (Tear-Off), Recover | D    | Prelim. Attached Insulation, Mech. Attached Base Sheet, Bonded Roof Cover | 4     |
| 1E-1  | Wood           | New, Reroof (Tear-Off)          | E    | Non-Insulated, Mech. Attached Base Sheet, Bonded Roof Cover               | 5     |
| 1E-2  | Wood           | New, Reroof (Tear-Off), Recover | E    | Non-Insulated, Mech. Attached Base Sheet, Bonded Roof Cover               | 5     |
| 2A    | Steel or Conc. | New, Reroof (Tear-Off), Recover | B    | Mech. Attached Base Insulation, Bonded Top Insulation, Bonded Roof Cover  | 6-10  |
| 2B    | Steel or Conc. | New, Reroof (Tear-Off), Recover | C    | Mech. Attached Insulation, Bonded Roof Cover                              | 11    |
| 2C    | Steel or Conc. | New, Reroof (Tear-Off), Recover | D    | Prelim. Attached Insulation, Mech. Attached Base Sheet, Bonded Roof Cover | 12    |
| 3A    | Concrete       | New, Reroof (Tear-Off)          | A-1  | Bonded Insulation, Bonded Roof Cover                                      | 13-14 |
| 3B    | Concrete       | New, Reroof (Tear-Off)          | F    | Non-Insulated, Bonded Roof Cover  | 14    |
| 4A-1  | LWIC           | New, Reroof (Tear-Off)          | A-1  | Bonded Insulation, Bonded Roof Cover                                      | 15    |
| 4A-2  | LWIC           | New, Reroof (Tear-Off)          | A-2  | Mech. Attached Anchor Sheet, Bonded Insulation, Bonded Roof Cover         | 16-17 |
| 4B    | LWIC           | New, Reroof (Tear-Off)          | E    | Non-Insulated, Mech. Attached Base Sheet, Bonded Roof Cover               | 18    |
| 5A    | CWF            | New, Reroof (Tear-Off), Recover | E    | Non-Insulated, Mech. Attached Base Sheet, Bonded Roof Cover               | 19    |
| 6A    | Gypsum         | Reroof (Tear-Off)               | A-1  | Bonded Insulation, Bonded Roof Cover                                      | 19    |
| 6B    | Gypsum         | Reroof (Tear-Off)               | E    | Non-Insulated, Mech. Attached Base Sheet, Bonded Roof Cover               | 19    |
| 7     | Various        | Recover                         | A-1  | Bonded Insulation, Bonded Roof Cover                                      | 20-21 |

**The following notes apply to the systems outlined herein:**

- The roof system evaluation herein pertains to above-deck roof components; deck-attachment details pertain to 'as-tested' conditions under TAS 114, Appendix J. Roof decks and structural members shall be in accordance with FBC requirements to the satisfaction of the AHJ. Load resistance of the roof deck shall be documented through proper codified and/or FBC Approval documentation.
- Unless otherwise noted, fasteners and stress plates for insulation attachment shall be as follows. Fasteners shall be of sufficient length for the following engagements:
  - Wood Deck: UltraFast Fasteners or All Purpose Fasteners with UltraFast Metal Plates. Minimum 0.75-inch plywood penetration or minimum 1-inch wood plank embedment.
  - Steel Deck: UltraFast Fasteners or All Purpose Fasteners with UltraFast Metal Plates. Minimum 0.75-inch steel penetration and engage the top flute of the steel deck.
  - Concrete Deck: All Purpose Fasteners with UltraFast Metal Plates or Struct conc. Fasteners with UltraFast Metal Plates (flat bottom only). Minimum 1-inch embedment. Fasteners installed with a pilot hole in accordance with the fastener manufacturer's published installation instructions.
- Unless otherwise noted, insulation may be any one layer or combination of polyisocyanurate, polystyrene, wood fiberboard, perlite, gypsum-based roof board, Invinsa Roof Board or Invinsa Foam that meets the QA requirements of F.A.C. Rule 61G20-3 and is documented as meeting FBC 1505.1 and, for foam plastic, FBC Chapter 26, when installed with the roof cover.
- Unless otherwise noted, insulation adhesive application rates are as follows. Ribbon or bead width is at the time of application; the ribbons/beads shall expand as noted in the manufacturer's published instructions.
  - Hot asphalt (HA): Full coverage at 25-30 lbs/square
  - JM MBR Bonding Adhesive (MBR-BA): Continuous 0.75-inch wide ribbons, 12-inch o.c. or full coverage at 2.0 gal/square
  - JM Two-Part Urethane Insulation Adhesive (UIA-TWO-PART): Continuous 0.75-inch wide ribbons, 12-inch o.c. *Note: JM Green Two-Part Urethane Insulation Adhesive may be used where UIA-TWO-PART is referenced.*
  - JM Roofing System Urethane Adhesive (RSUA): Continuous 0.5 to 0.75-inch wide ribbons, 12-inch o.c.
  - 3M CR-20: Continuous 2.5 to 3.5-inch ribbons, 12-inch o.c.
  - *Note: When multiple layers(s) of insulation and/or coverboard are installed in ribbon-applied adhesive, adhesive ribbons shall be staggered from layer-to-layer a distance of one-half the ribbon spacing.*
  - *Note: The maximum edge distance from the adhesive ribbon to the edge of the insulation board shall be not less than one-half the specified ribbons spacing.*

5. Unless otherwise noted, all insulations are flat stock or taper board of the minimum thickness noted. Tapered polyisocyanurate at the following thickness limitations may be substituted with the following Maximum Design Pressure (MDP) limitations. In no case shall these values be used to 'increase' the MDP listings in the tables; rather if MDP listing below meets or exceeds that listed for a particular system in the tables, then the thinner board listed below may be used as a drop-in for the equivalent thicker material listed in the table:
  - JM Two-Part Urethane Adhesive (UIA-TWO-PART): MDP -315.0 psf (Min. 0.5-inch thick)
  - JM Roofing System Urethane Adhesive (RSUA): MDP -157.5 psf (Min. 0.5-inch thick)
  - 3M CR-20: MDP -117.5 psf (Min. 1.0-inch thick)
6. Bonded polyisocyanurate insulation boards shall be maximum 4 x 4 ft.
7. For mechanically attached components or partially bonded insulation, the maximum design pressure for the selected assembly shall meet or exceed the Zone 1 design pressure determined in accordance with FBC Chapter 16, and Zones 2 and 3 shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria. Commonly used methods are RAS 117 and FM LPDS 1-29. Assemblies marked with an asterisk\* carry the limitations set forth in Section 2.2.1.5.1(a) of FM LPDS 1-29 for Zone 2/3 enhancements.
8. For assemblies where all components are fully adhered, the maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with FBC Chapter 16, and no rational analysis is permitted.
9. For mechanically attached components over existing decks, fasteners shall be tested in the existing deck for withdrawal resistance. A qualified design professional shall review the data for comparison to the minimum requirements for the system. Testing and analysis shall be in accordance with TAS 105 or ANSI/SPRI FX-1.
10. For existing substrates in a bonded recover installation, the existing roof surface shall be examined for compatibility and bond performance with the selected adhesive, and the existing roof system shall be capable of resisting project design pressures on its own merit to the satisfaction of the AHJ, as documented through field uplift testing in accordance with ASTM E907, FM LPDS 1-52, ANSI/SPRI IA-1 or TAS 124.
11. LWIC shall be cast in accordance with FBC Section 1917 to the satisfaction of the Authority Having Jurisdiction. For systems where specific LWIC is referenced, refer to current LWIC Product Approval for specific deck construction and limitations. For systems where specific LWIC is not referenced, the minimum design mix shall be 300 psi. In all cases, the minimum top-coat thickness is 2-inches. For LWIC over structural concrete, reference is made to FBC Section 1917.4.1, Point 1.
12. Unless otherwise noted, refer to the following references for bonded base, ply or cap sheet applications.

| Johns Manville Roof Covers                            |          |  |   |
|---|----------|--|---|
| Reference   | Layer    | Material   | Application   |
| BP-AA<br>(Base and Ply sheets, Asphalt-Applied)       | Base     | GlasBase Plus, PermaPly 28   | Hot asphalt at 20-40 lbs/square                           |
|   | Ply      | GlasPly IV, GlasPly Premier, GlasBase Plus, PermaPly 28                                      |   |
| BP-CA1<br>(Base and Ply sheets, Cold-Applied, 1-part) | Base     | GlasBase Plus, PermaPly 28   | JM MBR Cold Application Adhesive at 1.5 to 2.0 gal/square |
|   | Ply      | GlasPly IV, GlasPly Premier, GlasBase Plus, PermaPly 28                                      |   |
| APP-TA<br>(APP, Torch-Applied)                        | Base/Ply | JM APP Base, APPeX 4S  | Torch applied   |
|   | Cap      | APPeX 4S, APPeX 4.5M, APPeX 4.5M FR, APPeX 4.5M FR CR, Tricor S, Tricor M FR, Tricor M FR CR |   |
| APP-CA1<br>(APP, Cold-Applied, 1-part)                | Base/Ply | JM APP Base  | JM MBR Cold Application Adhesive at 1.5 to 2.0 gal/square |
|   | Cap      | Tricor M FR, Tricor M FR CR  |   |
| APP-CA2<br>(APP, Cold-Applied, 2-part)                | Base/Ply | JM APP Base  | JM MBR Bonding Adhesive at 1.5 to 2.0 gal/square          |
|   | Cap      | Tricor M FR, Tricor M FR CR  |   |

13. "MDP" = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads. Refer to FBC 1609 for determination of design wind loads.

**TABLE 1A-1: WOOD DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)**

**SYSTEM TYPE A-2: MECHANICALLY ATTACHED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER**

| System No. | Deck (See Note 1)       | Anchor Sheet                             |   |  | Base Insulation   |        | Top Insulation   |        | Roof Cover |                   |        | MDP (psf) |
|------------|-------------------------|--|---|--|---|--------|--|--------|------------|-------------------|--------|-----------|
|            |                         | Type                                     | Fasteners   | Attach   | Type  | Attach | Type   | Attach | Base       | Ply               | Cap    |           |
| W-1        | Min. 19/32-inch plywood | Two plies of PermaPly 28 or Ventsulation | 32 ga., 1-5/8-inch diameter tin caps with 11 ga. annular ring shank nails | 9-inch o.c. in 4-inch lap and 12-inch o.c. in two, equally spaced, staggered center rows | (Optional) Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF | HA     | Min. 0.75-inch Fesco Board, min. 0.5-inch Retro-Fit Board or DuraBoard or min. 1.5-inch Fesco Foam or DuraFoam | HA     | BP-AA      | (Optional) APP-TA | APP-TA | -52.5     |

**TABLE 1A-2: WOOD DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER**

**SYSTEM TYPE A-2: MECHANICALLY ATTACHED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER**

| System No. | Deck (See Note 1)       | Anchor Sheet                             |            |  | Base Insulation   |        | Top Insulation   |        | Roof Cover |                   |        | MDP (psf) |
|------------|-------------------------|--|------------|--|---|--------|--|--------|------------|-------------------|--------|-----------|
|            |                         | Type                                     | Fasteners  | Attach   | Type  | Attach | Type   | Attach | Base       | Ply               | Cap    |           |
| W-2        | Min. 19/32-inch plywood | Two plies of PermaPly 28 or Ventsulation | See Note 2 | 9-inch o.c. in 4-inch lap and 12-inch o.c. in two, equally spaced, staggered center rows | (Optional) Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF | HA     | Min. 0.75-inch Fesco Board, min. 0.5-inch Retro-Fit Board or DuraBoard or min. 1.5-inch Fesco Foam or DuraFoam | HA     | BP-AA      | (Optional) APP-TA | APP-TA | -52.5     |

**TABLE 1B: WOOD DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER**

**SYSTEM TYPE B: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER**

| System No. | Deck (See Note 1)       | Base Insulation Layer   |            |                            | Top Insulation Layer   |        | Roof Cover |                   |        | MDP (psf) |
|------------|-------------------------|---|------------|----------------------------|--|--------|------------|-------------------|--------|-----------|
|            |                         | Type  | Fasteners  | Attach                     | Type   | Attach | Base       | Ply               | Cap    |           |
| W-3        | Min. 19/32-inch plywood | Min. 1.4-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF, JM ISO 3 or Min 1.5-inch Fesco Foam or DuraFoam | See Note 2 | 1 per 2 ft <sup>2</sup>    | Min. 0.75-inch Fesco Board, min. 0.5-inch Retro-Fit Board or DuraBoard or min. 1.5-inch Fesco Foam | HA     | BP-AA      | (Optional) APP-TA | APP-TA | -45.0*    |
| W-4        | Min. 19/32-inch plywood | Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF, JM ISO 3, Fesco Foam or DuraFoam                | See Note 2 | 1 per 1.33 ft <sup>2</sup> | Min. 0.75-inch Fesco Board or min. 0.5-inch Retro-Fit Board or DuraBoard                           | HA     | BP-AA      | (Optional) APP-TA | APP-TA | -52.5     |

**TABLE 1C: WOOD DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER**  
**SYSTEM TYPE C: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER**

| System No. | Deck (See Note 1)       | Base Insulation Layer                           | Top Insulation Layer   |            |                         | Roof Cover |                   |        | MDP (psf) |
|------------|-------------------------|---|--|------------|-------------------------|------------|-------------------|--------|-----------|
|            |                         |   | Type   | Fasteners  | Attach                  | Base       | Ply               | Cap    |           |
| W-5        | Min. 19/32-inch plywood | One or more layers, any combination, loose laid | Min. 0.75-inch Fesco Board or min. 0.5-inch Retro-Fit Board or DuraBoard | See Note 2 | 1 per 2 ft <sup>2</sup> | BP-AA      | (Optional) APP-TA | APP-TA | -45.0*    |

**TABLE 1D: WOOD DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER**  
**SYSTEM TYPE D: PRELIMINARILY ATTACHED INSULATION, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER**

| System No. | Deck (See Note 1)       | Slip Sheet  | Insulation Layer(s)                              |               | Base Sheet  |   |   | Roof Cover        |        | MDP (psf) |
|------------|-------------------------|---|--|---------------|---|---|---|-------------------|--------|-----------|
|            |                         |   | Type   | Attach        | Base  | Fasteners   | Attach  | Ply               | Cap    |           |
| W-6        | Min. 19/32-inch plywood | (Optional) One or more layers PermaPly 28, loose laid below or above insulation | One or more layers, any combination              | Prelim Attach | JM APP Base, PermaPly 28, Glasbase Plus or Ventsulation | See Note 2  | 12-inch o.c. in 4-inch lap and 18-inch o.c. in two, equally spaced, staggered center rows | (Optional) APP-TA | APP-TA | -45.0*    |
| W-7        | Min. 15/32-inch plywood | (Optional) One or more layers PermaPly 28, loose laid below or above insulation | One or more layers, any combination              | Loose-laid    | DynaFast 180 HW or DynaFast 250 HW                      | High Load Fasteners and APB Plates or High Load Plates      | 18-inch o.c. within the min. 4-inch wide, heat-welded side laps.                          | (Optional) APP-TA | APP-TA | -45.0*    |
| W-8        | Min. 19/32-inch plywood | (Optional) One or more layers PermaPly 28, loose laid below or above insulation | One or more layers, any combination              | Prelim Attach | Two plies PermaPly 28 or Ventsulation                   | See Note 2  | 9-inch o.c. in 4-inch lap and 12-inch o.c. in two, equally spaced, staggered center rows  | (Optional) APP-TA | APP-TA | -52.5     |
| W-9        | Min. 15/32-inch plywood | (Optional) One or more layers PermaPly 28, loose laid below or above insulation | One or more layers, min. 1-inch, any combination | Loose-laid    | DynaFast 180 HW or DynaFast 250 HW                      | High Load Fasteners and APB Plates or High Load Plates      | 9-inch o.c. within the min. 4-inch wide, heat-welded side laps.                           | (Optional) APP-TA | APP-TA | -60.0     |
| W-10       | Min. 15/32-inch plywood | (Optional) One or more layers PermaPly 28, loose laid below or above insulation | One or more layers, min. 1-inch, any combination | Loose-laid    | DynaFast 180 HW or DynaFast 250 HW                      | High Load LH through 1-inch wide JM Polymer Membrane Batten | 6-inch o.c. within the min. 4-inch wide, heat-welded side laps.                           | (Optional) APP-TA | APP-TA | -82.5     |



**TABLE 1E-1: WOOD DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)**

**SYSTEM TYPE E: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER**

| System No. | Deck (See Note 1)       | Slip Sheet  | Base Sheet                               |   |  | Roof Cover        |        | MDP (psf) |
|------------|-------------------------|---|--|---|--|-------------------|--------|-----------|
|            |                         |   | Base                                     | Fasteners   | Attach   | Ply               | Cap    |           |
| W-11       | Min. 19/32-inch plywood | (Optional) One or more layers PermaPly 28, loose laid below | Two plies of PermaPly 28 or Ventsulation | 32 ga., 1-5/8-inch diameter tin caps with 11 ga. annular ring shank nails | 9-inch o.c. in 4-inch lap and 12-inch o.c. in two, equally spaced, staggered center rows | (Optional) APP-TA | APP-TA | -52.5     |

**TABLE 1E-2: WOOD DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER**

**SYSTEM TYPE E: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER**

| System No. | Deck (See Note 1)       | Slip Sheet  | Base Sheet  |  |   | Roof Cover        |        | MDP (psf) |
|------------|-------------------------|---|---|--|---|-------------------|--------|-----------|
|            |                         |   | Base  | Fasteners  | Attach  | Ply               | Cap    |           |
| W-12       | Min. 19/32-inch plywood | (Optional) One or more layers PermaPly 28, loose laid below | JM APP Base, PermaPly 28, Glasbase Plus or Ventsulation | See Note 2   | 12-inch o.c. in 4-inch lap and 18-inch o.c. in two, equally spaced, staggered center rows | (Optional) APP-TA | APP-TA | -45.0*    |
| W-13       | Min. 15/32-inch         | (Optional) One or more layers PermaPly 28, loose laid       | DynaFast 180 HW or DynaFast 250 HW                      | High Load Fasteners and APB Plates or High Load Plates | 18-inch o.c. within the min. min. 4-inch wide, heat-welded side laps.                     | (Optional) APP-TA | APP-TA | -45.0*    |
| W-14       | Min. 19/32-inch plywood | (Optional) One or more layers PermaPly 28, loose laid below | Two plies of PermaPly 28 or Ventsulation                | See Note 2   | 9-inch o.c. in 4-inch lap and 12-inch o.c. in two, equally spaced, staggered center rows  | (Optional) APP-TA | APP-TA | -52.5     |

**TABLE 2A: STEEL OR CONCRETE DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER**  
**SYSTEM TYPE B: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER**

| System No.                        | Deck<br>(See Note 1)   | Base Insulation Layer  |            |                            | Top Insulation Layer   |              | Roof Cover      |                   |        | MDP (psf) |
|-----------------------------------|--|--|------------|----------------------------|--|--------------|-----------------|-------------------|--------|-----------|
|                                   |  | Type   | Fasten     | Attach                     | Type   | Attach       | Base            | Ply               | Cap    |           |
| <b>HOT OR TORCH APPLIED BASE:</b> |  |  |            |                            |  |              |                 |                   |        |           |
| S-1                               | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF                                   | See Note 2 | 1 per 2 ft <sup>2</sup>    | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board  | HA           | BP-AA or APP-TA | (Optional) APP-TA | APP-TA | -45.0*    |
| S-2                               | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 2-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF                                     | See Note 2 | 1 per 4 ft <sup>2</sup>    | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board  | HA           | BP-AA or APP-TA | (Optional) APP-TA | APP-TA | -45.0*    |
| S-3                               | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF, JM ISO 3 Fesco Foam or DuraFoam  | See Note 2 | 1 per 2 ft <sup>2</sup>    | Min. 0.5-inch Retro-Fit Board or DuraBoard, min. 0.75-inch Fesco Board or min. 1.5-inch Fesco Foam or DuraFoam | HA           | BP-AA           | (Optional) APP-TA | APP-TA | -45.0*    |
| S-4                               | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF, JM ISO 3, Fesco Foam or DuraFoam | See Note 2 | 1 per 1.33 ft <sup>2</sup> | Min. 0.5-inch Retro-Fit Board or DuraBoard, min. 0.75-inch Fesco Board or min. 1.5-inch Fesco Foam or DuraFoam | HA           | BP-AA           | (Optional) APP-TA | APP-TA | -52.5     |
| S-5                               | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 2-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF                                     | See Note 2 | 1 per 1.6 ft <sup>2</sup>  | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board  | HA           | BP-AA or APP-TA | (Optional) APP-TA | APP-TA | -60.0     |
| S-6                               | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 2-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF, JM ISO 3                           | See Note 2 | 1 per 1.45 ft <sup>2</sup> | Min. 0.5-inch Retro-Fit Board or DuraBoard or min. 1.5-inch DuraFoam   | HA           | 3 plies BP-AA   | (Optional) APP-TA | APP-TA | -75.0     |
| S-7                               | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF or JM ISO 3                       | See Note 2 | 1 per 2 ft <sup>2</sup>    | Min. 0.5-inch DuraBoard  | MBR-BA       | APP-TA          | (Optional) APP-TA | APP-TA | -45.0*    |
| S-8                               | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF                                   | See Note 2 | 1 per 2 ft <sup>2</sup>    | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board  | UIA-TWO-PART | BP-AA or APP-TA | (Optional) APP-TA | APP-TA | -45.0*    |

**TABLE 2A: STEEL OR CONCRETE DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER**  
**SYSTEM TYPE B: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER**

| System No.                | Deck<br>(See Note 1)   | Base Insulation Layer  |            |                            | Top Insulation Layer                            |              | Roof Cover      |                   |         | MDP (psf) |
|---------------------------|--|--|------------|----------------------------|---|--------------|-----------------|-------------------|---------|-----------|
|                           |  | Type   | Fasten     | Attach                     | Type  | Attach       | Base            | Ply               | Cap     |           |
| S-9                       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 2-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF   | See Note 2 | 1 per 4 ft <sup>2</sup>    | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | UIA-TWO-PART | BP-AA or APP-TA | (Optional) APP-TA | APP-TA  | -45.0*    |
| S-10                      | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 2-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF   | See Note 2 | 1 per 1.6 ft <sup>2</sup>  | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | UIA-TWO-PART | BP-AA or APP-TA | (Optional) APP-TA | APP-TA  | -60.0     |
| S-11                      | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 2-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF   | See Note 2 | 1 per 2 ft <sup>2</sup>    | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | RSUA         | APP-TA          | (Optional) APP-TA | APP-TA  | -45.0*    |
| S-12                      | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF | See Note 2 | 1 per 2 ft <sup>2</sup>    | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20        | BP-AA or APP-TA | (Optional) APP-TA | APP-TA  | -45.0*    |
| S-13                      | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 2-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF   | See Note 2 | 1 per 4 ft <sup>2</sup>    | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20        | BP-AA or APP-TA | (Optional) APP-TA | APP-TA  | -45.0*    |
| S-14                      | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 2-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF   | See Note 2 | 1 per 1.6 ft <sup>2</sup>  | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20        | BP-AA or APP-TA | (Optional) APP-TA | APP-TA  | -60.0     |
| <b>COLD APPLIED BASE:</b> |  |  |            |                            |   |              |                 |                   |         |           |
| S-15                      | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF                     | See Note 2 | 1 per 5.33 ft <sup>2</sup> | Min. 0.5-inch RetroPlus Board                   | HA           | APP-CA2         | None              | APP-CA2 | -37.5*    |
| S-16                      | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF                     | See Note 2 | 1 per 4 ft <sup>2</sup>    | Min. 0.5-inch RetroPlus Board                   | HA           | APP-CA2         | None              | APP-CA2 | -45.0*    |
| S-17                      | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 2-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF                       | See Note 2 | 1 per 5.33 ft <sup>2</sup> | Min. 0.5-inch RetroPlus Board                   | HA           | APP-CA2         | None              | APP-CA2 | -45.0*    |

**TABLE 2A: STEEL OR CONCRETE DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER**  
**SYSTEM TYPE B: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER**

| System No. | Deck<br>(See Note 1)   | Base Insulation Layer  |            |                            | Top Insulation Layer          |                       | Roof Cover |      |         | MDP (psf) |
|------------|--|--|------------|----------------------------|-------------------------------|-----------------------|------------|------|---------|-----------|
|            |  | Type   | Fasten     | Attach                     | Type                          | Attach                | Base       | Ply  | Cap     |           |
| S-18       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF | See Note 2 | 1 per 1.78 ft <sup>2</sup> | Min. 0.5-inch RetroPlus Board | HA                    | APP-CA2    | None | APP-CA2 | -60.0     |
| S-19       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF | See Note 2 | 1 per 1.33 ft <sup>2</sup> | Min. 0.5-inch RetroPlus Board | HA                    | APP-CA2    | None | APP-CA2 | -67.5     |
| S-20       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF | See Note 2 | 1 per 1 ft <sup>2</sup>    | Min. 0.5-inch RetroPlus Board | HA                    | APP-CA2    | None | APP-CA2 | -90.0     |
| S-21       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 2-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF   | See Note 2 | 1 per 1.45 ft <sup>2</sup> | Min. 0.5-inch RetroPlus Board | HA                    | APP-CA2    | None | APP-CA2 | -90.0     |
| S-22       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF | See Note 2 | 1 per 5.33 ft <sup>2</sup> | Min. 0.5-inch RetroPlus Board | MBR-BA, full coverage | APP-CA2    | None | APP-CA2 | -37.5*    |
| S-23       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF | See Note 2 | 1 per 4 ft <sup>2</sup>    | Min. 0.5-inch RetroPlus Board | MBR-BA, full coverage | APP-CA2    | None | APP-CA2 | -45.0*    |
| S-24       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 2-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF   | See Note 2 | 1 per 5.33 ft <sup>2</sup> | Min. 0.5-inch RetroPlus Board | MBR-BA, full coverage | APP-CA2    | None | APP-CA2 | -45.0*    |
| S-25       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF | See Note 2 | 1 per 1.78 ft <sup>2</sup> | Min. 0.5-inch RetroPlus Board | MBR-BA, full coverage | APP-CA2    | None | APP-CA2 | -60.0     |
| S-26       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF | See Note 2 | 1 per 1.33 ft <sup>2</sup> | Min. 0.5-inch RetroPlus Board | MBR-BA, full coverage | APP-CA2    | None | APP-CA2 | -67.5     |
| S-27       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF | See Note 2 | 1 per 1 ft <sup>2</sup>    | Min. 0.5-inch RetroPlus Board | MBR-BA, full coverage | APP-CA2    | None | APP-CA2 | -90.0     |
| S-28       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 2-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF   | See Note 2 | 1 per 1.45 ft <sup>2</sup> | Min. 0.5-inch RetroPlus Board | MBR-BA, full coverage | APP-CA2    | None | APP-CA2 | -90.0     |

**TABLE 2A: STEEL OR CONCRETE DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER**  
**SYSTEM TYPE B: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER**

| System No. | Deck<br>(See Note 1)   | Base Insulation Layer  |            |                            | Top Insulation Layer                           |              | Roof Cover      |                            |         | MDP (psf) |
|------------|--|--|------------|----------------------------|--|--------------|-----------------|----------------------------|---------|-----------|
|            |  | Type   | Fasten     | Attach                     | Type   | Attach       | Base            | Ply                        | Cap     |           |
| S-29       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF | See Note 2 | 1 per 5.33 ft <sup>2</sup> | Min. 0.5-inch RetroPlus Board                  | UIA-TWO-PART | APP-CA2         | None                       | APP-CA2 | -37.5*    |
| S-30       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF | See Note 2 | 1 per 5.33 ft <sup>2</sup> | Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board | UIA-TWO-PART | BP-CA1, APP-CA1 | (Optional) BP-CA1, APP-CA1 | APP-CA1 | -37.5*    |
| S-31       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF | See Note 2 | 1 per 4 ft <sup>2</sup>    | Min. 0.5-inch RetroPlus Board                  | UIA-TWO-PART | APP-CA2         | None                       | APP-CA2 | -45.0*    |
| S-32       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF | See Note 2 | 1 per 4 ft <sup>2</sup>    | Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board | UIA-TWO-PART | BP-CA1, APP-CA1 | (Optional) BP-CA1, APP-CA1 | APP-CA1 | -45.0*    |
| S-33       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 2-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF   | See Note 2 | 1 per 5.33 ft <sup>2</sup> | Min. 0.5-inch RetroPlus Board                  | UIA-TWO-PART | APP-CA2         | None                       | APP-CA2 | -45.0*    |
| S-34       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 2-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF   | See Note 2 | 1 per 5.33 ft <sup>2</sup> | Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board | UIA-TWO-PART | BP-CA1, APP-CA1 | (Optional) BP-CA1, APP-CA1 | APP-CA1 | -45.0*    |
| S-35       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF | See Note 2 | 1 per 1.78 ft <sup>2</sup> | Min. 0.5-inch RetroPlus Board                  | UIA-TWO-PART | APP-CA2         | None                       | APP-CA2 | -60.0     |
| S-36       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF | See Note 2 | 1 per 1.78 ft <sup>2</sup> | Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board | UIA-TWO-PART | BP-CA1, APP-CA1 | (Optional) BP-CA1, APP-CA1 | APP-CA1 | -60.0     |
| S-37       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF | See Note 2 | 1 per 1.33 ft <sup>2</sup> | Min. 0.5-inch RetroPlus Board                  | UIA-TWO-PART | APP-CA2         | None                       | APP-CA2 | -67.5     |
| S-38       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF | See Note 2 | 1 per 1.33 ft <sup>2</sup> | Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board | UIA-TWO-PART | BP-CA1, APP-CA1 | (Optional) BP-CA1, APP-CA1 | APP-CA1 | -67.5     |
| S-39       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF | See Note 2 | 1 per 1 ft <sup>2</sup>    | Min. 0.5-inch RetroPlus Board                  | UIA-TWO-PART | APP-CA2         | None                       | APP-CA2 | -90.0     |

**TABLE 2A: STEEL OR CONCRETE DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER**  
**SYSTEM TYPE B: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER**

| System No. | Deck<br>(See Note 1)   | Base Insulation Layer  |            |                            | Top Insulation Layer                           |              | Roof Cover      |                            |         | MDP (psf) |
|------------|--|--|------------|----------------------------|--|--------------|-----------------|----------------------------|---------|-----------|
|            |  | Type   | Fasten     | Attach                     | Type   | Attach       | Base            | Ply                        | Cap     |           |
| S-40       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF | See Note 2 | 1 per 1 ft <sup>2</sup>    | Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board | UIA-TWO-PART | BP-CA1, APP-CA1 | (Optional) BP-CA1, APP-CA1 | APP-CA1 | -90.0     |
| S-41       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 2-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF   | See Note 2 | 1 per 1.45 ft <sup>2</sup> | Min. 0.5-inch RetroPlus Board                  | UIA-TWO-PART | APP-CA2         | None                       | APP-CA2 | -90.0     |
| S-42       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 2-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF   | See Note 2 | 1 per 1.45 ft <sup>2</sup> | Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board | UIA-TWO-PART | BP-CA1, APP-CA1 | (Optional) BP-CA1, APP-CA1 | APP-CA1 | -90.0     |
| S-43       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF | See Note 2 | 1 per 5.33 ft <sup>2</sup> | Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board | RSUA         | BP-CA1, APP-CA1 | (Optional) BP-CA1, APP-CA1 | APP-CA1 | -37.5*    |
| S-44       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF | See Note 2 | 1 per 4 ft <sup>2</sup>    | Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board | RSUA         | BP-CA1, APP-CA1 | (Optional) BP-CA1, APP-CA1 | APP-CA1 | -45.0*    |
| S-45       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 2-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF   | See Note 2 | 1 per 5.33 ft <sup>2</sup> | Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board | RSUA         | BP-CA1, APP-CA1 | (Optional) BP-CA1, APP-CA1 | APP-CA1 | -45.0*    |
| S-46       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF | See Note 2 | 1 per 1.78 ft <sup>2</sup> | Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board | RSUA         | BP-CA1, APP-CA1 | (Optional) BP-CA1, APP-CA1 | APP-CA1 | -60.0     |
| S-47       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF | See Note 2 | 1 per 1.33 ft <sup>2</sup> | Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board | RSUA         | BP-CA1, APP-CA1 | (Optional) BP-CA1, APP-CA1 | APP-CA1 | -67.5     |
| S-48       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 1.5-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF | See Note 2 | 1 per 1 ft <sup>2</sup>    | Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board | RSUA         | BP-CA1, APP-CA1 | (Optional) BP-CA1, APP-CA1 | APP-CA1 | -90.0     |
| S-49       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | Min. 2-inch ENRGY 3, R-Panel, ENRGY 3 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF or CGF, ENRGY 3 25 PSI AGF or CGF, ValuTherm AGF or CGF, ValuTherm 25 PSI AGF or CGF   | See Note 2 | 1 per 1.45 ft <sup>2</sup> | Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board | RSUA         | BP-CA1, APP-CA1 | (Optional) BP-CA1, APP-CA1 | APP-CA1 | -90.0     |

**TABLE 2B: STEEL OR CONCRETE DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER**
**SYSTEM TYPE C: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER**

| System No.                        | Deck<br>(See Note 1)   | Base Insulation Layer                           | Top Insulation Layer   |                                |                            | Roof Cover        |                            |         | MDP (psf) |
|-----------------------------------|--|---|--|--------------------------------|----------------------------|-------------------|----------------------------|---------|-----------|
|                                   |  |   | Type   | Fasteners                      | Attach                     | Base              | Ply                        | Cap     |           |
| <b>HOT OR TORCH APPLIED BASE:</b> |  |   |  |                                |                            |                   |                            |         |           |
| S-50                              | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | One or more layers, any combination, loose laid | Min. 0.5-inch Retro-Fit Board, DuraBoard or Min. 0.75-inch Fesco Board | See Note 2                     | 1 per 2 ft <sup>2</sup>    | BP-AA             | (Optional) APP-TA          | APP-TA  | -45.0*    |
| S-51                              | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | One or more layers, any combination, loose laid | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board                        | See Note 2                     | 1 per 4 ft <sup>2</sup>    | BP-AA or APP-TA   | (Optional) APP-TA          | APP-TA  | -45.0*    |
| S-52                              | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | One or more layers, any combination, loose laid | Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board                         | See Note 2                     | 1 per 1.78 ft <sup>2</sup> | BP-AA or APP-TA   | (Optional) APP-TA          | APP-TA  | -60.0     |
| S-53                              | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | One or more layers, any combination, loose laid | Min. 0.75-inch DuraBoard   | See Note 2                     | 1 per 1.33 ft <sup>2</sup> | APP-TA            | (Optional) APP-TA          | APP-TA  | -67.5     |
| S-54                              | Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi struct conc. | One or more layers, any combination, loose laid | Min. 0.75-inch DuraBoard   | See Note 2                     | 1 per 1.33 ft <sup>2</sup> | APP-TA            | (Optional) APP-TA          | APP-TA  | -75.0     |
| <b>COLD APPLIED BASE:</b>         |  |   |  |                                |                            |                   |                            |         |           |
| S-55                              | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | One or more layers, any combination, loose laid | 0.25-inch Invinsa Roof Board   | See Note 2                     | 1 per 2.67 ft <sup>2</sup> | BP-CA1, APP-CA1   | (Optional) BP-CA1, APP-CA1 | APP-CA1 | -30.0*    |
| S-56                              | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | One or more layers, any combination, loose laid | Min. 0.5-inch DuraBoard  | See Note 2                     | 1 per 2 ft <sup>2</sup>    | BP-CA1, APP-CA1   | None                       | APP-CA1 | -37.5*    |
| S-57                              | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | One or more layers, any combination, loose laid | 0.25-inch Invinsa Roof Board   | See Note 2; round plates only  | 1 per 2 ft <sup>2</sup>    | BP-CA1, APP-CA1   | (Optional) BP-CA1, APP-CA1 | APP-CA1 | -37.5*    |
| S-58                              | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | One or more layers, any combination, loose laid | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board                        | See Note 2                     | 1 per 2.67 ft <sup>2</sup> | BP-CA1, APP-CA1   | (Optional) BP-CA1, APP-CA1 | APP-CA1 | -37.5*    |
| S-59                              | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | One or more layers, any combination, loose laid | 0.25-inch Invinsa Roof Board   | See Note 2; square plates only | 1 per 2 ft <sup>2</sup>    | BP-CA1, APP-CA1   | (Optional) BP-CA1, APP-CA1 | APP-CA1 | -45.0*    |
| S-60                              | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | One or more layers, any combination, loose laid | Min. 0.375-inch SECUROCK Gypsum-Fiber Roof Board                       | See Note 2; round plates only  | 1 per 4 ft <sup>2</sup>    | BP-CA1, APP-CA1   | (Optional) BP-CA1, APP-CA1 | APP-CA1 | -45.0*    |
| S-61                              | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | One or more layers, any combination, loose laid | Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board                         | See Note 2                     | 1 per 1.45 ft <sup>2</sup> | BP-CA1, APP-CA1   | (Optional) BP-CA1, APP-CA1 | APP-CA1 | -82.5     |
| <b>SELF-ADHERING BASE:</b>        |  |   |  |                                |                            |                   |                            |         |           |
| S-62                              | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | One or more layers, any combination, loose laid | Min. 1.5-inch ENRGY 3  | See Note 2                     | 1 per 2 ft <sup>2</sup>    | JM BaseGrip SD/SA | (Optional) APP-TA          | APP-TA  | -45.0*    |

**TABLE 2C: STEEL OR CONCRETE DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER**  
**SYSTEM TYPE D: PRELIMINARILY ATTACHED INSULATION, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER**

| System No. | Deck<br>(See Note 1)   | Insulation Layer(s)                                |                  | Base or Anchor Sheet                                    |   |  | Roof Cover        |        | MDP (psf) |
|------------|--|--|------------------|---|---|--|-------------------|--------|-----------|
|            |  | Type   | Attach           | Base  | Fasteners   | Attach   | Ply               | Cap    |           |
| S-63       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | One or more layers, any combination                | Prelim. Attached | JM APP Base, PermaPly 28, Glasbase Plus or Ventsulation | See Note 2  | 12-inch o.c. at the 4-inch lap and 18-inch o.c. in two, staggered center rows                                      | (Optional) APP-TA | APP-TA | -45.0*    |
| S-64       | Min. 22 ga., type B, Grade 33 steel                                | One or more layers, min. 1-inch, any combination   | Loose-laid       | DynaFast 180 HW or DynaFast 250 HW                      | High Load Fasteners and APB Plates or High Load Plates      | 18-inch o.c. within the min. 4-inch wide, heat-welded side laps.   | (Optional) APP-TA | APP-TA | -45.0*    |
| S-65       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | One or more layers, any combination                | Prelim. Attached | Two Plies of PermaPly 28 or Ventsulation                | See Note 2  | 9-inch o.c. at the 4-inch lap and 12-inch o.c. in two, staggered center rows                                       | (Optional) APP-TA | APP-TA | -52.5     |
| S-66       | Min. 22 ga., type B, Grade 33 steel                                | One or more layers, min. 1-inch, any combination   | Loose-laid       | DynaFast 180 HW or DynaFast 250 HW                      | High Load Fasteners and High Load Plates                    | 12-inch o.c. within the min. 4-inch wide, heat-welded side laps.   | (Optional) APP-TA | APP-TA | -67.5     |
| S-67       | Min. 22 ga., type B, Grade 80 steel                                | One or more layers, min. 1-inch, any combination   | Prelim. Attached | DynaFast 180 HW or DynaFast 250 HW                      | High Load LH through 1-inch wide JM Polymer Membrane Batten | 6-inch o.c. within min. 4-inch wide, heat-welded laps spaced 71.75-inch o.c.; intermediate 3-inch laps heat-welded | (Optional) APP-TA | APP-TA | -90.0     |
| S-68       | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi struct conc. | One or more layers, min. 1-inch, any combination   | Prelim. Attached | GlasBase Plus   | See Note 2  | 9-inch o.c. at the 4-inch lap and 12-inch o.c. in two, staggered center rows                                       | (Optional) APP-TA | APP-TA | -97.5     |
| S-69       | Min. 22 ga., type B, Grade 33 steel                                | One or more layers, min. 1-inch, any combination   | Loose-laid       | DynaFast 180 HW or DynaFast 250 HW                      | High Load Fasteners and APB Plates or High Load Plates      | 6-inch o.c. within the min. 4-inch wide, heat-welded side laps.  | (Optional) APP-TA | APP-TA | -105.0    |
| S-70       | Min. 22 ga., type EF, Grade 80 steel                               | One or more layers, min. 1-inch, any combination   | Prelim. Attached | DynaFast 180 HW   | High Load Fasteners and High Load Plates                    | 6-inch o.c. within the min. 4-inch wide, heat welded laps  | (Optional) APP-TA | APP-TA | -142.5    |
| S-71       | Min. 22 ga., type EF, Grade 80 steel                               | One or more layers, min. 1.5-inch, any combination | Loose laid       | DynaFast 250 HW   | High Load Fasteners and High Load Plates                    | 6-inch o.c. within the min. 4-inch wide, heat welded laps  | (Optional) APP-TA | APP-TA | -165.0    |



**TABLE 3A: CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)**  
**SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

| System No.                        | Deck (Note 1) | Primer   | Base Insulation Layer  |              | Top Insulation Layer   |              | Roof Cover |                            |        | MDP (psf) |
|-----------------------------------|---------------|----------|--|--------------|--|--------------|------------|----------------------------|--------|-----------|
|                                   |               |          | Type   | Attach       | Type   | Attach       | Base       | Ply                        | Cap    |           |
| <b>HOT OR TORCH APPLIED BASE:</b> |               |          |  |              |  |              |            |                            |        |           |
| C-1.                              | Concrete      | ASTM D41 | Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF or JM ISO 3   | HA           | Min 0.5-inch DuraBoard   | HA           | APP-TA     | (Optional) APP-TA          | APP-TA | -67.5     |
| C-2.                              | Concrete      | ASTM D41 | Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF or JM ISO 3   | HA           | Min. 0.75-inch FescoBoard or min. 0.5-inch DuraBoard   | HA           | BP-AA      | (Optional) BP-AA or APP-TA | APP-TA | -120.0    |
| C-3.                              | Concrete      | ASTM D41 | Min. 1.4-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF, JM ISO 3 or Min 1.5-inch Fesco Foam or DuraFoam or Min. 0.75-inch Fesco Board or Min 0.5-inch Retro-Fit Board or DuraBoard | HA           | Min 1.5-inch Fesco Foam or DuraFoam or Min. 0.75-inch Fesco Board or Min 0.5-inch Retro-Fit Board or DuraBoard | HA           | BP-AA      | (Optional) APP-TA          | APP-TA | -150.0    |
| C-4.                              | Concrete      | ASTM D41 | Min. 2-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF   | HA           | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board  | HA           | BP-AA      | (Optional) BP-AA or APP-TA | APP-TA | -225.0    |
| C-5.                              | Concrete      | ASTM D41 | Min. 2-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF   | HA           | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board  | HA           | APP-TA     | (Optional) APP-TA          | APP-TA | -232.5    |
| C-6.                              | Concrete      | ASTM D41 | Min. 1.5-inch ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm CGF, ValuTherm 25 PSI CGF   | HA           | Min. 0.5-inch DuraBoard  | HA           | BP-AA      | (Optional) APP-TA          | APP-TA | -277.5    |
| C-7.                              | Concrete      | ASTM D41 | Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, JM ISO 3, ValuTherm AGF, ValuTherm 25 PSI AGF  | HA           | Min. 0.5-inch DuraBoard  | HA           | BP-AA      | (Optional) APP-TA          | APP-TA | -305.0    |
| C-8.                              | Concrete      | None     | Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF or JM ISO 3   | MBR-BA       | Min. 0.75-inch FescoBoard or min. 0.5-inch DuraBoard   | MBR-BA       | BP-AA      | (Optional) BP-AA or APP-TA | APP-TA | -120.0    |
| C-9.                              | Concrete      | None     | Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF or JM ISO 3   | UIA-TWO-PART | Min 0.5-inch DuraBoard   | UIA-TWO-PART | APP-TA     | (Optional) APP-TA          | APP-TA | -67.5     |
| C-10.                             | Concrete      | None     | Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF or JM ISO 3   | UIA-TWO-PART | Min. 0.5-inch DuraBoard  | UIA-TWO-PART | BP-AA      | (Optional) BP-AA or APP-TA | APP-TA | -105.0    |

**TABLE 3A: CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)**  
**SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

| System No.                | Deck (Note 1) | Primer | Base Insulation Layer   |              | Top Insulation Layer                              |              | Roof Cover      |                            |         | MDP (psf) |
|---------------------------|---------------|--------|---|--------------|---|--------------|-----------------|----------------------------|---------|-----------|
|                           |               |        | Type  | Attach       | Type  | Attach       | Base            | Ply                        | Cap     |           |
| C-11.                     | Concrete      | None   | Min. 2-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF                          | UIA-TWO-PART | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board   | UIA-TWO-PART | BP-AA           | (Optional) BP-AA or APP-TA | APP-TA  | -225.0    |
| C-12.                     | Concrete      | None   | Min. 2-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF                          | UIA-TWO-PART | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board   | UIA-TWO-PART | APP-TA          | (Optional) APP-TA          | APP-TA  | -232.5    |
| C-13.                     | Concrete      | None   | (Optional) Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF or JM ISO 3 | RSUA         | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board   | RSUA         | APP-TA          | (Optional) APP-TA          | APP-TA  | -105.0    |
| C-14.                     | Concrete      | None   | Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF or JM ISO 3            | RSUA         | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board   | RSUA         | BP-AA           | (Optional) BP-AA or APP-TA | APP-TA  | -225.0    |
| C-15.                     | Concrete      | None   | Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF or JM ISO 3            | RSUA         | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board   | RSUA         | APP-TA          | (Optional) APP-TA          | APP-TA  | -232.5    |
| C-16.                     | Concrete      | None   | Min. 2-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF                          | CR-20        | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board   | CR-20        | BP-AA           | (Optional) BP-AA or APP-TA | APP-TA  | -225.0    |
| C-17.                     | Concrete      | None   | Min. 2-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF                          | CR-20        | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board   | CR-20        | APP-TA          | (Optional) APP-TA          | APP-TA  | -232.5    |
| <b>COLD APPLIED BASE:</b> |               |        |   |              |   |              |                 |                            |         |           |
| C-18.                     | Concrete      | None   | (Optional) Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF or JM ISO 3 | CR-20        | Min. 0.5-inch DuraBoard or min. 1.5-inch DuraFoam | CR-20        | BP-CA1, APP-CA1 | (Optional) BP-CA1, APP-CA1 | APP-CA1 | -82.5     |

**TABLE 3B: CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)**  
**SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER**

| System No. | Deck (See Note 1) | Primer   | Roof Cover |                   |        | MDP (psf) |
|------------|-------------------|----------|------------|-------------------|--------|-----------|
|            |                   |          | Base       | Ply               | Cap    |           |
| C-19.      | Concrete          | ASTM D41 | BP-AA      | (Optional) APP-TA | APP-TA | -305.0    |
| C-20.      | Concrete          | ASTM D41 | APP-TA     | (Optional) APP-TA | APP-TA | -315.0    |

**TABLE 4A-1: LIGHTWEIGHT CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)**  
**SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

| System No. | Deck<br>(See Notes 1 & 11) |                                     | Base Insulation Layer  |              | Top Insulation Layer                            |              | Roof Cover      |                            |        | MDP (psf) |
|------------|----------------------------|-------------------------------------|--|--------------|---|--------------|-----------------|----------------------------|--------|-----------|
|            | Deck                       | LWC                                 | Type   | Attach       | Type  | Attach       | Base            | Ply                        | Cap    |           |
| LWC-1      | Concrete                   | Min. 200 psi, min 2-inch Elastizell | Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF or JM ISO 3 | UIA-TWO-PART | Min 0.5-inch DuraBoard                          | UIA-TWO-PART | APP-TA          | (Optional) APP-TA          | APP-TA | -67.5     |
| LWC-2      | Concrete                   | Min. 200 psi, min 2-inch Elastizell | Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF or JM ISO 3 | UIA-TWO-PART | Min. 0.5-inch DuraBoard                         | UIA-TWO-PART | BP-AA           | (Optional) BP-AA or APP-TA | APP-TA | -105.0    |
| LWC-3      | Concrete                   | Min. 200 psi, min 2-inch Elastizell | Min. 2-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF               | UIA-TWO-PART | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | UIA-TWO-PART | BP-AA or APP-TA | (Optional) BP-AA or APP-TA | APP-TA | -225.0    |
| LWC-4      | Concrete                   | Min. 200 psi, min 2-inch Elastizell | Min. 2-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF               | CR-20        | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20        | BP-AA or APP-TA | (Optional) BP-AA or APP-TA | APP-TA | -180.0    |
| LWC-5      | Concrete                   | Min. 200 psi, min 2-inch Celcore    | Min. 2-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF               | CR-20        | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20        | BP-AA or APP-TA | (Optional) BP-AA or APP-TA | APP-TA | -222.5    |
| LWC-6      | Concrete                   | Min. 200 psi, min 2-inch Mearlcrete | Min. 2-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF               | CR-20        | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20        | BP-AA           | (Optional) BP-AA or APP-TA | APP-TA | -225.0    |
| LWC-7      | Concrete                   | Min. 200 psi, min 2-inch Mearlcrete | Min. 2-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF               | CR-20        | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20        | APP-TA          | (Optional) APP-TA          | APP-TA | -232.5    |

**TABLE 4A-2: LIGHTWEIGHT CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)**  
**SYSTEM TYPE A-2: MECHANICALLY ATTACHED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER**

| System No. | Deck<br>(See Notes 1 & 11)  | Anchor Sheet  |  |  | Insulation   |   |        | Roof Cover |                   |        | MDP (psf) |
|------------|---|---|--|--|--|---|--------|------------|-------------------|--------|-----------|
|            |   | Type  | Fasteners  | Attach   | Base   | Top   | Attach | Base       | Ply               | Cap    |           |
| LWC-8      | Min. 300 psi, min. 2-inch thick cellular LWIC over min. 22 ga. steel or concrete deck. <i>Note: To qualify the LWIC under this assembly, a JM LWC Base Sheet Fastener shall achieve an average withdrawal of 62 lbf when tested per TAS 105 or ANSI/SPRI FX-1</i> | JM PermaPly 28, DynaBase, GlasPly Premier or Ventsulation | JM LWC Base Sheet Fasteners  | 7-inch o.c. at the 3-inch lap and 7-inch o.c. in two, equally spaced, staggered center rows  | Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF, JM ISO 3, Fesco Foam or DuraFoam, min. 0.75-inch Fesco Board or min. 0.5-inch Retro-Fit Board or DuraBoard | (Optional) Any base insulation except polyiso | HA     | BP-AA      | (Optional) APP-TA | APP-TA | -52.5     |
| LWC-9      | Min. 300 psi, min. 2-inch thick cellular LWIC over min. 22 ga. steel or concrete deck. <i>Note: To qualify the LWIC under this assembly, a JM LWC Base Sheet Fastener shall achieve an average withdrawal of 62 lbf when tested per TAS 105 or ANSI/SPRI FX-1</i> | JM PermaPly 28, DynaBase, GlasPly Premier or Ventsulation | JM LWC Base Sheet Fasteners  | 7-inch o.c. at the 3-inch lap and 7-inch o.c. in two, equally spaced, staggered center rows  | Min. 1.5-inch DuraFoam   | None  | HA     | APP-TA     | (Optional) APP-TA | APP-TA | -52.5     |
| LWC-10     | Min. 300 psi, min. 2-inch thick cellular LWIC over min. 22 ga. steel or concrete deck. <i>Note: To qualify the LWIC under this assembly, a JM LWC Base Sheet Fastener shall achieve an average withdrawal of 62 lbf when tested per TAS 105 or ANSI/SPRI FX-1</i> | JM PermaPly 28, DynaBase, GlasPly Premier or Ventsulation | JM LWC Base Sheet Fasteners  | 7-inch o.c. at the 3-inch lap and 7-inch o.c. in two, equally spaced, staggered center rows  | Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF, JM ISO 3   | Min. 0.5-inch DuraBoard                       | HA     | APP-TA     | (Optional) APP-TA | APP-TA | -52.5     |
| LWC-11     | Min. 300 psi, min. 2-inch thick cellular LWIC over min. 22 ga. steel or concrete deck.  | JM PermaPly 28, DynaBase, GlasPly Premier or Ventsulation | See Note 2<br><i>Fasteners to engage structural deck below LWIC.</i> | 7-inch o.c. at the 4-inch lap and 7-inch o.c. in two, equally spaced, staggered center rows. | Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF, JM ISO 3, Fesco Foam or DuraFoam, min. 0.75-inch Fesco Board or min. 0.5-inch Retro-Fit Board or DuraBoard | (Optional) Any base insulation except polyiso | HA     | BP-AA      | (Optional) APP-TA | APP-TA | -75.0     |

**TABLE 4A-2: LIGHTWEIGHT CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)**  
**SYSTEM TYPE A-2: MECHANICALLY ATTACHED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER**

| System No. | Deck<br>(See Notes 1 & 11)   | Anchor Sheet  |  |  | Insulation   |   |        | Roof Cover |                   |        | MDP (psf) |
|------------|--|---|--|--|--|---|--------|------------|-------------------|--------|-----------|
|            |  | Type  | Fasteners  | Attach   | Base   | Top   | Attach | Base       | Ply               | Cap    |           |
| LWC-12     | Min. 300 psi, min. 2-inch thick cellular LWIC over min. 22 ga. steel or concrete deck.     | JM PermaPly 28, DynaBase, GlasPly Premier or Ventsulation | See Note 2<br><i>Fasteners to engage structural deck below LWIC.</i> | 7-inch o.c. at the 4-inch lap and 7-inch o.c. in two, equally spaced, staggered center rows. | Min. 1.5-inch DuraFoam   | None  | HA     | APP-TA     | (Optional) APP-TA | APP-TA | -75.0     |
| LWC-13     | Min. 300 psi, min. 2-inch thick cellular LWIC over min. 22 ga. steel or concrete deck.     | JM PermaPly 28, DynaBase, GlasPly Premier or Ventsulation | See Note 2<br><i>Fasteners to engage structural deck below LWIC.</i> | 7-inch o.c. at the 4-inch lap and 7-inch o.c. in two, equally spaced, staggered center rows. | Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF, JM ISO 3   | Min. 0.5-inch DuraBoard                       | HA     | APP-TA     | (Optional) APP-TA | APP-TA | -75.0     |
| LWC-14     | Min. 300 psi, min. 2.25-inch thick Concrecel LWIC over min. 22 ga. steel or concrete deck. | GlasPly Premier   | JM LWC Base Sheet Fasteners  | 7-inch o.c. at the 3-inch lap and 7-inch o.c. in two, equally spaced, staggered center rows  | Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF, JM ISO 3, Fesco Foam or DuraFoam, min. 0.75-inch Fesco Board or min. 0.5-inch Retro-Fit Board or DuraBoard | (Optional) Any base insulation except polyiso | HA     | BP-AA      | (Optional) APP-TA | APP-TA | -82.5     |

**TABLE 4B: LIGHTWEIGHT CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)**  
**SYSTEM TYPE E: MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER**

| System No. | Deck (See Notes 1 & 11)                            |  | Base Sheet   |  |  | Roof Cover        |        | MDP (psf) |
|------------|--|--|--|--|--|-------------------|--------|-----------|
|            | Structural Deck                                    | LWC  | Type   | Fasteners  | Attach   | Ply               | Cap    |           |
| LWC-15     | Min. 22 ga, type B, Grade 33 steel or struct conc. | Min. 300 psi, min. 2-inch thick cellular LWIC<br><i>Note: To qualify the LWIC under this assembly, a JM LWC Base Sheet Fastener shall achieve an average withdrawal of 60 lbf when tested per TAS 105 or ANSI/SPRI FX-1</i>                    | PermaPly 28 or Ventsulation                            | JM LWC Base Sheet Fasteners  | 7-inch o.c. at the 4-inch lap and 7-inch o.c. in two, equally spaced, staggered center rows      | (Optional) APP-TA | APP-TA | -52.5     |
| LWC-16     | Min. 22 ga, type B, Grade 33 steel or struct conc. | Min. 300 psi, min. 2-inch thick cellular LWIC<br><i>Note: To qualify the LWIC under this assembly, a JM UltraLok or Trufast Twin Loc-Nail Fastener shall achieve an average withdrawal of 88 lbf when tested per TAS 105 or ANSI/SPRI FX-1</i> | PermaPly 28 or DynaBase                                | JM UltraLok or Trufast Twin Loc-Nail   | 9-inch o.c. at the 4-inch lap and 9-inch o.c. in two, equally spaced, staggered center rows      | (Optional) APP-TA | APP-TA | -60.0     |
| LWC-17     | Min. 22 ga, type B, Grade 33 steel or struct conc. | Min. 498 psi, minimum 2-inch thick Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture   | DynaFast 180 HW or DynaFast 250 HW                     | Trufast Twin Loc Tubes or JM UltraLok Tubes (min. 1.8-inch) through Trufast Batten Bar or JM Metal Batten TL | 6-inch o.c. within the min. 4-inch wide, heat-welded side laps.                                  | (Optional) APP-TA | APP-TA | -60.0     |
| LWC-18     | Min. 22 ga, type B, Grade 33 steel or struct conc. | Min. 200 psi, min. 2-inch thick cellular LWIC  | PermaPly 28 or Ventsulation                            | See Note 2<br><i>Fasteners to engage structural deck below LWC.</i>  | 7-inch o.c. at the 4-inch lap and 7-inch o.c. in two, equally spaced, staggered center rows.     | (Optional) APP-TA | APP-TA | -75.0     |
| LWC-19     | Min. 22 ga, type B, Grade 33 steel or struct conc. | Min. 300 psi, min. 2-inch thick Celcore LWIC   | DynaBase, GlasPly Premier, PermaPly 28 or Ventsulation | JM LWC Base Sheet Fasteners  | 7-inch o.c. at the 4-inch lap and 7-inch o.c. in two, equally spaced, staggered center rows      | (Optional) APP-TA | APP-TA | -75.0     |
| LWC-20     | Min. 22 ga, type B, Grade 33 steel or struct conc. | Min. 498 psi, minimum 2-inch thick Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture   | DynaFast 180 HW or DynaFast 250 HW                     | Trufast Twin Loc Tubes or JM UltraLok Tubes (min. 1.8-inch) through Trufast Batten Bar or JM Metal Batten TL | 6-inch o.c. within the min. 4-inch wide, heat-welded side laps and 6-inch o.c. in one center row | (Optional) APP-TA | APP-TA | -75.0     |
| LWC-21     | Min. 22 ga, type B, Grade 33 steel or struct conc. | Min. 300 psi, minimum 2.25-inch thick Concrecel LWIC   | GlasPly Premier  | JM LWC Base Sheet Fasteners  | 7-inch o.c. at the 3-inch lap and 7-inch o.c. in two, equally spaced, staggered center rows      | (Optional) APP-TA | APP-TA | -82.5     |
| LWC-22     | Structural concrete                                | Min. 498 psi, minimum 2-inch thick Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture   | DynaFast 180 HW or DynaFast 250 HW                     | Trufast Twin Loc Tubes or JM UltraLok Tubes (min. 1.8-inch) through Trufast Batten Bar or JM Metal Batten TL | 6-inch o.c. within the min. 4-inch wide, heat-welded side laps and 6-inch o.c. in one center row | (Optional) APP-TA | APP-TA | -90.0     |

**TABLE 5A: CEMENTITIOUS WOOD FIBER DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER**  
**SYSTEM TYPE E: MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER**

| System No. | Deck (See Note 1)     | Base Sheet                         |   |  | Roof Cover        |        | MDP (psf) |
|------------|-----------------------|------------------------------------|---|--|-------------------|--------|-----------|
|            |                       | Type                               | Fasteners   | Attach   | Ply               | Cap    |           |
| CWF-1.     | 3-inch Tectum I Plank | DynaFast 180 HW or DynaFast 250 HW | Trufast Twin Loc Tubes or JM UltraLok Tubes (1.8-inch) through Trufast Batten Bar or JM Metal Batten TL | 6-inch o.c. within the min. 4-inch wide, heat-welded side laps and 6-inch o.c. in one center row | (Optional) APP-TA | APP-TA | -90.0     |

**TABLE 6A: GYPSUM DECKS – REROOF (TEAR-OFF)**  
**SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

| System No. | Deck (See Notes 1 & 10)               | Base Insulation Layer  |              | Top Insulation Layer                            |              | Roof Cover      |                            |        | MDP (psf) |
|------------|---------------------------------------|--|--------------|---|--------------|-----------------|----------------------------|--------|-----------|
|            |                                       | Type   | Attach       | Type  | Attach       | Base            | Ply                        | Cap    |           |
| G-1.       | Existing sound gypsum or gypsum plank | Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF or JM ISO 3 | UIA-TWO-PART | Min 0.5-inch DuraBoard                          | UIA-TWO-PART | APP-TA          | (Optional) APP-TA          | APP-TA | -67.5     |
| G-2.       | Existing sound gypsum or gypsum plank | Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF or JM ISO 3 | UIA-TWO-PART | Min. 0.5-inch DuraBoard                         | UIA-TWO-PART | BP-AA           | (Optional) BP-AA or APP-TA | APP-TA | -105.0    |
| G-3.       | Existing sound gypsum or gypsum plank | Min. 2-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF               | UIA-TWO-PART | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | UIA-TWO-PART | BP-AA or APP-TA | (Optional) BP-AA or APP-TA | APP-TA | -112.5    |
| G-4.       | Existing sound gypsum or gypsum plank | Min. 2-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF               | CR-20        | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20        | BP-AA           | (Optional) BP-AA or APP-TA | APP-TA | -225.0    |
| G-5.       | Existing sound gypsum or gypsum plank | Min. 2-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF               | CR-20        | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20        | APP-TA          | (Optional) APP-TA          | APP-TA | -232.5    |

**TABLE 6B: GYPSUM DECKS – REROOF (Tear-Off) or RECOVER**  
**SYSTEM TYPE E: MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER**

| System No. | Deck (See Notes 1 & 9)                | Base Sheet                         |   |  | Roof Cover        |        | Max. Design Pressure |
|------------|---------------------------------------|------------------------------------|---|--|-------------------|--------|----------------------|
|            |                                       | Type                               | Fasteners   | Attach   | Ply               | Cap    |                      |
| G-6.       | Existing sound gypsum or gypsum plank | DynaFast 180 HW or DynaFast 250 HW | Trufast Twin Loc Tubes or JM UltraLok Tubes through Trufast Batten Bar or JM Metal Batten TL (Field W/D $\geq$ 177 lbf) | 6-inch o.c. within the min. 4-inch wide, heat-welded side laps.                                  | (Optional) APP-TA | APP-TA | -60.0                |
| G-7.       | Existing sound gypsum or gypsum plank | DynaFast 180 HW or DynaFast 250 HW | Trufast Twin Loc Tubes or JM UltraLok Tubes through Trufast Batten Bar or JM Metal Batten TL (Field W/D $\geq$ 133 lbf) | 6-inch o.c. within the min. 4-inch wide, heat-welded side laps and 6-inch o.c. in one center row | (Optional) APP-TA | APP-TA | -90.0                |

**TABLE 7: RECOVER APPLICATIONS**  
**SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

| System No. | Substrate<br>(See Notes 1 & 10) | Base Insulation Layer  |              | Top Insulation Layer   |              | Roof Cover      |                            |        | MDP (psf) |
|------------|---------------------------------|--|--------------|--|--------------|-----------------|----------------------------|--------|-----------|
|            |                                 | Type   | Attach       | Type   | Attach       | Base            | Ply                        | Cap    |           |
| R-1.       | Existing asphaltic BUR          | Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF or JM ISO 3   | HA           | Min 0.5-inch DuraBoard   | HA           | APP-TA          | (Optional) APP-TA          | APP-TA | -67.5     |
| R-2.       | Existing asphaltic BUR          | Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF or JM ISO 3   | HA           | Min. 0.75-inch FescoBoard or min. 0.5-inch DuraBoard   | HA           | BP-AA           | (Optional) BP-AA or APP-TA | APP-TA | -120.0    |
| R-3.       | Existing asphaltic BUR          | Min. 1.4-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF, JM ISO 3 or Min 1.5-inch Fesco Foam or DuraFoam or Min. 0.75-inch Fesco Board or Min 0.5-inch Retro-Fit Board or DuraBoard | HA           | Min 1.5-inch Fesco Foam or DuraFoam or Min. 0.75-inch Fesco Board or Min 0.5-inch Retro-Fit Board or DuraBoard | HA           | BP-AA           | (Optional) APP-TA          | APP-TA | -150.0    |
| R-4.       | Existing asphaltic BUR          | Min. 2-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF   | HA           | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board  | HA           | BP-AA           | (Optional) BP-AA or APP-TA | APP-TA | -225.0    |
| R-5.       | Existing asphaltic BUR          | Min. 2-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF   | HA           | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board  | HA           | APP-TA          | (Optional) APP-TA          | APP-TA | -232.5    |
| R-6.       | Existing asphaltic BUR          | Min. 1.5-inch ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm CGF, ValuTherm 25 PSI CGF   | HA           | Min. 0.5-inch DuraBoard  | HA           | BP-AA           | (Optional) APP-TA          | APP-TA | -277.5    |
| R-7.       | Existing asphaltic BUR          | Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, JM ISO 3, ValuTherm AGF, ValuTherm 25 PSI AGF  | HA           | Min. 0.5-inch DuraBoard  | HA           | BP-AA           | (Optional) APP-TA          | APP-TA | -305.0    |
| R-8.       | Existing asphaltic BUR          | Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF or JM ISO 3   | MBR-BA, full | Min. 0.75-inch FescoBoard or min. 0.5-inch DuraBoard   | MBR-BA       | BP-AA           | (Optional) BP-AA or APP-TA | APP-TA | -112.5    |
| R-9.       | Existing asphaltic BUR          | Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF or JM ISO 3   | UIA-TWO-PART | Min 0.5-inch DuraBoard   | UIA-TWO-PART | APP-TA          | (Optional) APP-TA          | APP-TA | -67.5     |
| R-10.      | Existing asphaltic BUR          | Min. 1.5-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF or JM ISO 3   | UIA-TWO-PART | Min. 0.5-inch DuraBoard  | UIA-TWO-PART | BP-AA           | (Optional) BP-AA or APP-TA | APP-TA | -105.0    |
| R-11.      | Existing asphaltic BUR          | Min. 2-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF   | UIA-TWO-PART | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board  | UIA-TWO-PART | BP-AA or APP-TA | (Optional) BP-AA or APP-TA | APP-TA | -120.0    |



**TABLE 7: RECOVER APPLICATIONS**  
**SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

| System No. | Substrate<br>(See Notes 1 & 10) | Base Insulation Layer  |        | Top Insulation Layer                            |        | Roof Cover |                            |        | MDP (psf) |
|------------|---------------------------------|--|--------|---|--------|------------|----------------------------|--------|-----------|
|            |                                 | Type   | Attach | Type  | Attach | Base       | Ply                        | Cap    |           |
| R-12.      | Existing asphaltic BUR          | Min. 2-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF | CR-20  | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20  | BP-AA      | (Optional) BP-AA or APP-TA | APP-TA | -225.0    |
| R-13.      | Existing asphaltic BUR          | Min. 2-inch ENRGY 3, PSI-25, ENRGY 3 AGF, ENRGY 3 25 PSI AGF, ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm 25 PSI AGF, ValuTherm CGF, ValuTherm 25 PSI CGF | CR-20  | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20  | APP-TA     | (Optional) APP-TA          | APP-TA | -232.5    |