



NEMO|etc.

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ENGINEER

EVALUATE

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EVALUATION REPORT

Duro-Last Roofing, Inc.
525 Morley Drive
Saginaw, MI 48601
(800) 248-0280

Evaluation Report 1m-DL-19-FBCER.01.20-R1
FL31331-R1
Date of Issuance: 01/24/2020
Revision 1: 07/14/2020

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 **7th Edition (2020) Florida Building Code, High Velocity Hurricane Zone** sections noted herein.

DESCRIPTION: Duro-Last Single Ply Roof Systems

LABELING: Labeling shall be in accordance with the requirements of 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 or production facility location(s) changes, or Code provisions that relate to the product(s) change. Acceptance of our Evaluation Reports by the named client constitutes agreement to notify NEMO ETC, LLC of any changes to the product(s), the Quality Assurance or the production facility location(s). NEMO ETC, LLC requires a complete review of its Evaluation Report relative to updated Code requirements with each Code Cycle.

ADVERTISEMENT: The Florida Product Approval Number (FL#) preceded by the words "NEMO|etc. Evaluated" may be displayed in advertising literature. If any portion of the Evaluation Report is displayed, then it shall be done in its entirety.

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 42-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 07/14/2020. This does not serve as an electronically signed document.

CERTIFICATION OF INDEPENDENCE:

1. NEMO ETC, LLC 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. NEMO ETC, LLC 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 NEMO ETC, LLC 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 SYSTEM EVALUATION:
1. SCOPE:

Product Category: Roofing
Sub-Category: Single Ply Roof Systems

Compliance Statement: **Duro-Last Single Ply Roof Systems**, as produced by the **Duro-Last Roofing, Inc.**, have demonstrated compliance with the following sections of the **6th Edition (2017) Florida Building Code, HVHZ** 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> |
|----------------|-------------------------------|-----------------------------|-------------|
| TAS 110 | Resistance to Foot Traffic | TAS 114, Section 8.9 | 2011 |
| TAS 110 | Wind resistance | TAS 114, Appendix C, D or J | 2011 |
| TAS 110 | Susceptibility to Hail Damage | TAS 114, Appendix F | 2011 |
| TAS 110 | Susceptibility to Leakage | TAS 114, Appendix G | 2011 |
| TAS 110 | Material standard | ASTM D4434 | 2012 |

3. REFERENCES:

| <u>Entity</u> | <u>Examination</u> | <u>Reference</u> | <u>Date</u> |
|------------------------|--------------------|----------------------|-------------|
| ACRC (TST4671) | TAS 114(D) | 19-007 | 09/18/2019 |
| ACRC (TST4671) | TAS 114(D) | 19-008 | 09/18/2019 |
| ACRC (TST4671) | TAS 114(D) | 19-009 | 09/18/2019 |
| ACRC (TST4671) | TAS 114(D) | 19-010 | 09/18/2019 |
| ACRC (TST4671) | TAS 114(D) | 19-011 | 09/20/2019 |
| ACRC (TST4671) | TAS 114(D) | 19-012 | 09/20/2019 |
| ACRC (TST4671) | TAS 114(D) | 19-013 | 09/23/2019 |
| ACRC (TST4671) | TAS 114(D) | 19-014 | 09/23/2019 |
| ACRC (TST4671) | TAS 114(D) | 19-015 | 09/24/2019 |
| ACRC (TST4671) | TAS 114(D) | 19-016 | 09/24/2019 |
| ACRC (TST4671) | TAS 114(D) | 19-017 | 09/25/2019 |
| ERD (TST6049) | TAS 114 | 02733.01.05-1 | 01/21/2005 |
| ERD (TST6049) | TAS 114 | 02737.03.05-1 | 03/21/2005 |
| ERD (TST6049) | TAS 114 | 02744.05.06 | 05/17/2006 |
| ERD (TST6049) | TAS 114 | D6760.08.07 | 08/01/2007 |
| ERD (TST6049) | TAS 114 | P12200.10.08 | 10/14/2008 |
| ERD (TST6049) | TAS 114 | D42320.08.12 | 08/31/2012 |
| ERD (TST6049) | TAS 114 | D41660.11.12-R1 | 12/12/2012 |
| ERD (TST6049) | TAS 114 | D42390.10.12 | 10/03/2012 |
| ERD (TST6049) | TAS 114 | D42320.11.12 | 11/30/2012 |
| ERD (TST6049) | TAS 114 | D41660.11.12-R1 | 12/12/2012 |
| ERD (TST6049) | ASTM D4434 | D35210.08.11-R3 | 03/25/2013 |
| ERD (TST6049) | TAS 114 | D43030.01.13-R1 | 10/02/2013 |
| ERD (TST6049) | TAS 114 | SFS-SC10010.02.16-R1 | 07/06/2016 |
| ERD (TST6049) | ASTM D4434 | DL-SC13445.02.17 | 02/17/2017 |
| ERD (TST11294) | TAS 114 | 14325.07.17-3 | 07/20/2017 |
| ERD (TST6049) | TAS 114(H) | ICP-SC15630.09.17 | 09/06/2017 |
| ERD (TST6049) | TAS 114(H) | ICP-SC16225.09.17 | 09/06/2017 |
| FM Approvals (TST1867) | TAS 114 | 3Y5A6.AM | 03/10/1995 |
| FM Approvals (TST1867) | TAS 114 | 4D6A4.AM | 08/09/1999 |
| FM Approvals (TST1867) | TAS 114 | 3005604 | 03/13/2000 |
| FM Approvals (TST1867) | TAS 114 | 3008342 | 10/19/2000 |
| FM Approvals (TST1867) | TAS 114 | 3009502 | 12/21/2000 |
| FM Approvals (TST1867) | TAS 114 | 3012321 | 07/29/2002 |
| FM Approvals (TST1867) | TAS 114 | 3015444 | 07/11/2003 |

| Entity | Examination | Reference | Date |
|------------------------|--------------------|----------------------|-------------|
| FM Approvals (TST1867) | TAS 114 | 3014692 | 08/05/2003 |
| FM Approvals (TST1867) | TAS 114 | 3023458 | 07/18/2006 |
| FM Approvals (TST1867) | TAS 114 | 3026128 | 08/04/2006 |
| FM Approvals (TST1867) | TAS 114 | 3026508 | 05/03/2007 |
| FM Approvals (TST1867) | TAS 114 | 3032172 | 06/12/2009 |
| FM Approvals (TST1867) | TAS 114 | 3041535 | 06/08/2011 |
| FM Approvals (TST1867) | TAS 114 | 3040346 | 07/06/2011 |
| FM Approvals (TST1867) | TAS 114 | 3040741 | 10/17/2011 |
| FM Approvals (TST1867) | TAS 114 | 3047477 | 10/03/2012 |
| FM Approvals (TST1867) | TAS 114 | 3044466 | 11/07/2012 |
| FM Approvals (TST1867) | TAS 114 | 3056207 | 02/09/2016 |
| FM Approvals (TST1867) | TAS 114 | 3054028 | 05/25/2016 |
| FM Approvals (TST1867) | TAS 114 | 3055045 | 05/25/2016 |
| FM Approvals (TST1867) | TAS 114 | 3058300 | 07/13/2017 |
| FM Approvals (TST1867) | TAS 114 | 3059661 | 09/21/2018 |
| FM Approvals (TST1867) | TAS 114 | PR451159 | 05/09/2019 |
| NEMO (TST6049) | ASTM D4434, G155 | 4S-DL-18-001.01.19 | 01/30/2019 |
| NEMO (TST11294) | TAS 114 | 2a-DL-19-LSWUS-01.A | 06/27/2019 |
| NEMO (TST6049) | ASTM D4434, G154 | 4r-DL-19-SSTHP-01.A | 04/29/2020 |
| NEMO (TST6049) | ASTM D4434, G154 | 4r-DL-19-SSTHP-01.B | 04/29/2020 |
| PRI (TST5878) | TAS 114 | DLRI-013-02-01 | 08/28/2012 |
| PRI (TST5878) | TAS 114 | DLRI-014-02-01 | 08/28/2012 |
| PRI (TST5878) | TAS 114 | DLRI-029-02-01 | 10/25/2012 |
| PRI (TST5878) | TAS 114 | DLRI-070-02-01 | 07/30/2014 |
| PRI (TST5878) | TAS 114 | DLRI-073-02-02 | 11/18/2014 |
| PRI (TST5878) | TAS 114 | NGC-034-02-01 | 03/25/2016 |
| PRI (TST5878) | TAS 114 | NGC-035-02-01 | 05/19/2016 |
| PRI (TST5878) | ASTM D4434 | DLRI-080-02-01 | 08/03/2016 |
| PRI (TST5878) | ASTM D4434, G155 | DLRI-123-02-01 | 03/27/2019 |
| PRI (TST5878) | TAS 114 | DLRI-133-02-01 | 05/09/2019 |
| PRI (TST5878) | TAS 114 | DLRI-133-02-02 | 09/06/2019 |
| PRI (TST5878) | TAS 114(H) | DLRI-021-02-01.16 | 05/28/2020 |
| UL, LLC. (QUA9625) | Quality Control | Service Confirmation | 04/12/2019 |

4. PRODUCT DESCRIPTION:

This Evaluation Report covers Duro-Last Single Ply Roof Systems installed in accordance with Duro-Last published installation instructions and the Limitations / Conditions of Use herein.

| | Product | Material Standard | Plant(s) | Description |
|-----|---------------------|---|-----------------|--|
| 4.1 | Duro-Last | ASTM D4434 Type III (50, 60, 80-mil) Type IV (40-mil) | Saginaw, MI | Nominal 40-mil (1.0 mm), 50-mil (1.3 mm) or 60-mil (1.5-mm) thick thermoplastic (PVC) roof covering having an 18 x 14 polyester fabric reinforcement composed of 840 x 1000 denier threads. |
| 4.2 | Duro-Last EV | ASTM D4434 Type III | Saginaw, MI | Nominal 50-mil (1.3 mm) or 60-mil (1.5-mm) thick thermoplastic (PVC/KEE) roof covering having an 18 x 9 polyester fabric reinforcement with weft insertion, composed of 840 x 1000 denier threads. |
| 4.3 | Duro-Tuff | ASTM D4434 Type III | Saginaw, MI | Nominal 50-mil (1.3 mm), 60-mil (1.5-mm) or 80-mil (2.0-mm) thick thermoplastic (PVC) roof covering having an 18 x 9 polyester fabric reinforcement composed of 840 x 1000 denier threads. |

| | Product | Material Standard | Plant(s) | Description |
|-----|-------------------------|------------------------|--------------|---|
| 4.4 | Duro-Fleece | ASTM D4434 Type III | Saginaw, MI | Nominal 50-mil (1.3 mm), 60-mil (1.5-mm) or 80-mil (2.0-mm) thick thermoplastic (PVC) roof covering having an 18 x 9 polyester fabric reinforcement composed of 840 x 1000 denier threads and a polyester fleece backing. |
| 4.5 | Duro-Fleece Plus | ASTM D4434 Type III | Hillside, NJ | Nominal 50-mil (1.3 mm) or 60-mil (1.5-mm) thick thermoplastic (PVC) roof covering having an 18 x 14 polyester fabric reinforcement composed of 840 x 1000 denier threads and a polyester fleece backing. |

5. LIMITATIONS:

- 5.1 This is a Building Code Evaluation. Neither NEMO ETC, LLC 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 Non-High Velocity Hurricane Zone jurisdictions.
- 5.3 The evaluation herein pertains to above-deck roof components; deck-attachment details pertain to ‘as-tested’ conditions under **Testing Application Standard TAS 114, Appendix J**. Roof decks shall be in accordance with **FBC HVHZ** requirements to the satisfaction of the Authority Having Jurisdiction.
- 5.4 This Evaluation Report does not include evaluation of fire classification. Refer to **FBC HVHZ 1516** for requirements and limitations regarding roof assembly fire classification. Refer to **FBC 2603** for requirements and limitations concerning the use of foam plastic insulation.
- 5.5 This Evaluation Report does not include evaluation of roof edge termination. Refer to **Roofing Application Standard RAS 111** for requirements and limitations regarding edge securement for low-slope roofs.
- 5.6 Refer to **FBC HVHZ 1521** for requirements and limitations regarding recover installations.
- 5.6.1 For mechanically attached components 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 shall be in accordance with **Testing Application Standard TAS 105**.
- 5.6.2 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 **Testing Application Standard TAS 124** shall be conducted on mock-ups of the proposed new roof assembly.
- 5.6.3 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 Authority Having Jurisdiction, as documented through field uplift testing in accordance with **Testing Application Standard TAS 124**.
- 5.7 Refer to Appendix 1 for system attachment requirements for wind load resistance.
- 5.7.1 “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 **Testing Application Standard TAS 114** has already been applied). Refer to **FBC HVHZ 1620** and **Roofing Application Standard RAS 128** for determination of design wind loads.
- 5.7.2 For mechanically attached components, the maximum design pressure for the selected assembly shall meet or exceed at least the Zone 1 PRIME design pressure determined in accordance with **FBC HVHZ 1620** or **Roofing Application Standard RAS 128**. Elevated pressure zones shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria. Analysis shall be in accordance with **Roofing Application Standard RAS 117** or **Roofing Application Standard RAS 137**. ****This extrapolation is not permitted for systems marked with an asterisk*.***

- 5.7.3 For assemblies marked with an asterisk*, the maximum design pressure (MDP) limitation shall be applicable to all roof pressure zones. Rational analysis is not permitted.
- 5.8 All components in the roof assembly shall have quality assurance audit in accordance with **F.A.C. Rule 61G20-3**. Refer to the Product Approval of the component manufacturer for components listed in Appendix 1 that are produced by a Product Manufacturer other than the report holder on Page 1 of this Evaluation Report.

6. INSTALLATION:

- 6.1 **Duro-Last Single Ply Roof Systems** shall be installed in accordance with **Duro-Last Roofing, Inc.** published installation instructions, subject to the Limitations / Conditions of Use noted herein.

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. QUALITY ASSURANCE ENTITY:

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

- THE 42-PAGES THAT FOLLOW FORM PART OF THIS EVALUATION REPORT -

APPENDIX 1: ATTACHMENT REQUIREMENTS FOR WIND UPLIFT RESISTANCE

| TABLE | DECK | APPLICATION | TYPE | DESCRIPTION | PAGE |
|-------|------------------------------|-----------------------------------|------|--|-------|
| 1A | Wood | New, Reroof (Tear-Off) or Recover | C-1 | Mech. Attached Insulation, Bonded Roof Cover | 4-5 |
| 1B | Wood | New, Reroof (Tear-Off) or Recover | C-2 | Mechanically Attached Insulation, Plate-Bonded Roof Cover | 5 |
| 1C | Wood | New, Reroof (Tear-Off) or Recover | D-1 | Prelim. Attached Insulation, Mech. Attached Roof Cover | 6 |
| 2A | Steel | New or Reroof (Tear-Off) | A-1 | Bonded Insulation, Bonded Roof Cover | 7 |
| 2B | Steel or Structural Concrete | New, Reroof (Tear-Off) or Recover | B | Mech. Attached Base Insulation, Bonded Top Insulation, Bonded Roof Cover | 8 |
| 2C | Steel or Structural Concrete | New, Reroof (Tear-Off) or Recover | C-1 | Mech. Attached Insulation, Bonded Roof Cover | 9-11 |
| 2D | Steel | New, Reroof (Tear-Off) or Recover | C-2 | Mechanically Attached Insulation, Plate-Bonded Roof Cover | 11-15 |
| 2E | Steel | New, Reroof (Tear-Off) or Recover | D-1 | Prelim. Attached Insulation, Mech. Attached Roof Cover | 16-17 |
| 2F | Steel | New or Reroof (Tear-Off) | D-2 | Thermal Barrier, Vapor Barrier, Prelim. Attached Insulation, Mech. Attached Roof Cover | 18 |
| 3A | Structural Concrete | New or Reroof (Tear-Off) | A-1 | Bonded Insulation, Bonded Roof Cover | 19-23 |
| 3B | Structural Concrete | New, Reroof (Tear-Off) or Recover | C-2 | Mechanically Attached Insulation, Plate-Bonded Roof Cover | 24-26 |
| 3C | Structural Concrete | New, Reroof (Tear-Off) or Recover | D | Prelim. Attached Insulation, Mech. Attached Roof Cover | 27 |
| 3D | Structural Concrete | New, Reroof (Tear-Off) | F | Non-Insulated, Bonded Roof Cover | 27 |
| 4A | Lightweight concrete / steel | New or Reroof (Tear-Off) | A-1 | LWIC to Steel Deck, Bonded Insulation, Bonded Roof Cover | 28 |
| 4B | Lightweight concrete / | New or Reroof (Tear-Off) | A-1 | LWIC to Structural Concrete Deck, Bonded Insulation, Bonded Roof Cover | 29-31 |
| 4C | Lightweight concrete / steel | New or Reroof (Tear-Off) | E-2 | LWIC to Steel Deck, Mechanically Attached Base Sheet, Bonded Roof Cover | 31 |
| 4D | Lightweight concrete / steel | New or Reroof (Tear-Off) | F | LWIC to Steel Deck, Bonded Roof Cover | 31 |
| 4E | Lightweight concrete / | New or Reroof (Tear-Off) | F | LWIC to Structural Concrete Deck / Bonded Roof Cover | 32 |
| 5A | Cementitious wood fiber | Reroof (Tear-Off) | A-1 | Bonded Insulation, Bonded Roof Cover | 33 |
| 5B | Cementitious wood fiber | New, Reroof (Tear-Off) or Recover | D-1 | Prelim. Attached Insulation, Mech. Attached Roof Cover | 33 |
| 6A | Gypsum | Reroof (Tear-Off) | A-1 | Bonded Insulation, Bonded Roof Cover | 34 |
| 6B | Gypsum | Reroof (Tear-Off) or Recover | D-1 | Prelim. Attached Insulation, Mech. Attached Roof Cover | 35 |
| 7A | Various | Recover | A-1 | Bonded Insulation, Bonded Roof Cover | 35-38 |
| 7B | Steel | Recover | C-2 | Mechanically Attached Insulation, Plate-Bonded Roof Cover | 39-41 |
| 7C | Steel | Recover | D-1 | Insulated, Mechanically Attached Roof Cover | 41 |
| 7D | Cementitious wood fiber | Recover | E-1 | Non-insulated, Mech. Attached Roof Cover | 42 |
| 7E | Various | Recover | F | Non-Insulated, Bonded Roof Cover | 42 |

The following notes apply to the systems outlined herein:

- The evaluation herein pertains to above-deck roof components; deck-attachment details pertain to ‘as-tested’ conditions under **Testing Application Standard TAS 114, Appendix J**. Roof decks shall be in accordance with **FBC HVHZ** requirements to the satisfaction of the Authority Having Jurisdiction.
- Fasteners shall be of sufficient length for the following engagements, and shall be corrosion resistant. The roofing screws and plates noted herein are corrosion resistant in accordance with Testing Application Standard TAS 114, Appendix E:
 - Wood Deck: Duro-Last #14 HD Fasteners and Duro-Last 3-inch Metal Plates; minimum 0.75-inch plywood penetration or minimum 1-inch wood plank embedment.
 - Steel Deck: Duro-Last #14 HD or #15 Extra Heavy Duty Drill Point Fasteners and Duro-Last 3-inch Metal Plates; minimum 0.75-inch steel penetration and engage the top flute of the steel deck.
 - Structural Concrete: Duro-Last #14 HD Fasteners, Duro-Last Concrete Screws or Duro-Last Fluted Concrete Nails and Duro-Last 3-inch Metal Plates; minimum 1.25-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 FBC Approved (Local or Statewide) board(s) that meet **FBC HVHZ 1516** and, for foam plastic, **FBC Chapter 26**, when installed with the roof cover.

4. If mechanical attachment to the structural deck through lightweight insulating concrete is proposed, field withdrawal resistance testing shall be performed to confirm equivalent or determine enhanced fastening patterns and density. All testing and fastening design shall be in compliance with **Testing Application Standard TAS 105** and **Roofing Application Standard RAS 117** and/or **Roofing Application Standard RAS 137**. Calculations shall be prepared, signed and sealed by a qualified design professional.
5. Preliminary insulation attachment for System Type D = Minimum four fasteners per 4 x 8 ft board or minimum two fasteners per 4 x 4 ft board.
6. 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.
 - Ashland, Inc. "Pliodeck Insulation Adhesive": Continuous ½ to ¾-inch wide ribbons, 12-inch o.c. Ribbons for subsequent layer(s) shall be run perpendicular to those for the underlying layer.
 - Duro-Grip Board-Max: Continuous 3-inch ribbons, 12-inch o.c.
 - Duro-Grip CR-20: Continuous 2½ to 3½-inch ribbons, 12-inch o.c.
 - Duro-Grip INSTA STIK Quik Set: Continuous ¾ to 1-inch wide ribbons, 12-inch o.c.
 - Duro-Grip OlyBond 500: Continuous ¾ to 1-inch wide ribbons, 12-inch o.c. using PaceCart, SpotShot or Cansiter.
 - Duro-Grip Millennium One Step Adhesive (M-OSA): Continuous 0.25 to 0.5-inch wide ribbons, 12-inch o.c.
 - Hot asphalt: Full mopping, 25-30 lbs/square.
 - OMG "OlyBond Classic": Continuous ¾-inch ribbons, 12-inch o.c. or full-coverage
 - Altenloh, Brinck & Co "Trufast Roofing Adhesive": Continuous ¾ to 1-inch wide ribbons, 12-inch o.c.
 - *Note: When multiple layers(s) of insulation and/or coverboard are installed in ribbon-applied adhesive, boards shall be staggered from layer-to-layer.*
 - *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.*
7. 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:
 - Duro-Grip CR-20: MDP = -117.5 psf (Min. 1.0-inch thick)
 - Duro-Grip OlyBond 500: MDP = -315.0 psf (Min. 0.5-inch thick H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G)
 - Duro-Grip OlyBond 500: MDP = -487.5 psf (Min. 0.5-inch thick ACFoam II or Duro-Guard ISO II-A)
 - Duro-Grip Millennium One Step Adhesive (M-OSA): MDP = -157.5 psf (Min. 0.5-inch thick)
8. Bonded polyisocyanurate insulation boards shall be maximum 4 x 4 ft.
9. For mechanically attached components, the maximum design pressure for the selected assembly shall meet or exceed at least the Zone 1 PRIME design pressure determined in accordance with **FBC HVHZ 1620** or **Roofing Application Standard RAS 128**. Elevated pressure zones shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria. Analysis shall be in accordance with **Roofing Application Standard RAS 117** or **Roofing Application Standard RAS 137**. **This extrapolation is not permitted for systems marked with an asterisk*.*
10. For assemblies marked with an asterisk*, the maximum design pressure (MDP) limitation shall be applicable to all roof pressure zones. Rational analysis is not permitted.
11. For mechanically attached components 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 shall be in accordance with **Testing Application Standard TAS 105**.
12. 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 shall be conducted on mock-ups of the proposed new roof assembly. 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 Authority Having Jurisdiction, as documented through field uplift testing. Field uplift testing shall be in accordance with **Testing Application Standard TAS 124**.
13. For System Type D, steel deck applications, the roof membrane shall be run with its length perpendicular to the steel deck flutes.
14. Refer to **FBC 1521** for requirements and limitations regarding recover installations. For Structural Concrete Deck or Recover Applications using System Type C-2 (Plate Bonded Roof Cover) or Type D-1 (Mechanically Attached Roof Cover), the insulation is optional. Alternatively, Duro-Blue™, Duro-Weave™, Duro-Last Geotextile Slip Sheet, Duro-Fold™ or Ultra-Fold® TPM or an FBC Approved insulation board or coverboard may be used as a separation layer. Board products shall be preliminarily attached prior to roof cover installation (Note 5 herein). The separator component shall be documented as meeting FBC 1505 and, for foam plastic, FBC Chapter 26, when installed with the roof cover in Recover applications.

15. Lightweight insulating concrete (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. Unless otherwise noted, 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. For “pre-existent” LWIC references, listings were established through testing over lightweight concrete cast using only foaming agent (ASTM C896), water and Portland cement (ASTM C150), with no proprietary additives, in accordance with procedures adopted by Miami-Dade BCCO (FBC CER1592). Use of these listings in new construction or re-roof (tear-off) applications is at the discretion of the Designer or Record and Authority Having Jurisdiction.
16. For adhered membrane systems, side laps shall be minimum 3-inch wide sealed with min. 1.5-inch heat weld. Membrane adhesive application rates are as follows:

| DURO-LAST ROOF COVER / ADHESIVE COMBINATIONS | | | |
|--|---|----------------|--|
| MEMBRANE | ADHESIVE | APPLICATION | RATE |
| Duro-Last | Duro-Last SB I | Contact | 1.5 gal/sq./surface |
| Duro-Last, Duro-Last EV or Duro-Tuff | Duro-Last SB IV | Contact | 1.67 gal/sq./surface |
| Duro-Last | Duro-Last WB I | Contact | 0.5 gal/sq./surface |
| Duro-Last, Duro-Last EV or Duro-Tuff | Duro-Last WB II | Substrate only | 0.7 gal/sq. |
| Duro-Fleece or Duro-Fleece Plus | Duro-Last WB II | Substrate only | 1.0 gal/sq. |
| Duro-Fleece or Duro-Fleece Plus | Duro-Fleece Adhesive | Substrate only | Continuous ¾-inch wide ribbons, 6-inch o.c. |
| Duro-Fleece or Duro-Fleece Plus | Duro-Fleece CR-20 Membrane Adhesive | Substrate only | Splatter-applied, full coverage per Duro-Last instructions |
| Duro-Fleece or Duro-Fleece Plus | Altenloh, Brinck “Trufast Roofing Adhesive” | Substrate only | RIBBONS: Continuous ¾ to 1-inch wide ribbons, 4-inch o.c., resulting in full-coverage SPLATTER: Splatter-applied, full coverage, 3.0 lbs/square |

17. Vapor barrier options for use over **structural concrete deck** followed by adhesive-applied insulation carry the following Maximum Design Pressure (MDP) limitations. The **lesser** of the MDP listings below vs. those in **Table 3A** applies.

| VAPOR BARRIER OPTIONS; STRUCTURAL CONCRETE DECK; FOLLOWED BY ADHESIVE-APPLIED INSULATION PER TABLE 3A: | | | | | |
|--|---------------------|------------------------------------|---------------|--|-----------|
| Option # | Primer | Vapor Barrier | | Insulation Adhesive | MDP (psf) |
| | | Type | Application | | |
| VB-1. | ASTM D41 | Duro-Last Torch Down Vapor Barrier | torch-applied | Board-Max, 12-inch o.c. | -37.5 |
| VB-2. | ASTM D41 | Duro-Last Torch Down Vapor Barrier | torch-applied | OlyBond 500, 12-inch o.c. | -382.5 |
| VB-3. | ASTM D41 | Duro-Last Torch Down Vapor Barrier | torch-applied | Trufast Roofing Adhesive, 12-inch o.c. | -180.0 |
| VB-4. | ASTM D41 | Duro-Last Torch Down Vapor Barrier | torch-applied | Millennium One Step Adhesive, 12-inch o.c. | -270.0 |
| VB-5. | Duro-Last VB Primer | Duro-Last Vapor Barrier | self-adhering | Board-Max, 12-inch o.c. | -37.5 |
| VB-6. | Duro-Last VB Primer | Duro-Last Vapor Barrier | self-adhering | OlyBond 500, 12-inch o.c. | -187.5 |
| VB-7. | Duro-Last VB Primer | Duro-Last Vapor Barrier | self-adhering | Trufast Roofing Adhesive, 12-inch o.c. | -390.0 |
| VB-8. | Duro-Last VB Primer | Duro-Last Vapor Barrier | self-adhering | Millennium One Step Adhesive, 12-inch o.c. | -172.5 |

18. “MDP” = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads. Refer to **FBC HVHZ 1620** or **Roofing Application Standard RAS 128** for determination of design wind loads.

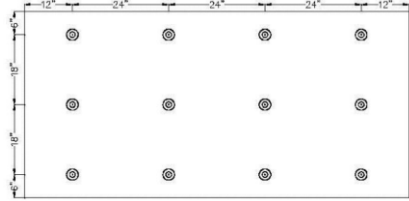
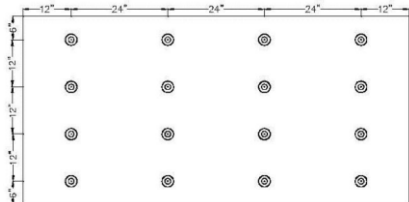
**TABLE 1A: WOOD DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER**

| System No. | Deck (Note 1) | Base Insulation Layer | Top Insulation Layer | | | Roof Cover (Note 16) | MDP (psf) |
|---|---|--|--|--|---------------------------|--|-----------|
| | | | Type | Fasteners | Attach | | |
| BAREBACK MEMBRANE APPLICATIONS: | | | | | | | |
| W-1. | Min. 19/32-inch APA rated plywood; 2 ft span; 0.113" x 2 3/8" ring shank nails, 6" o.c. | (Optional) One or more layers, any combination | Min. 0.25-inch DEXcell FA Glass Mat Roof Board | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners and Duro-Last 3-inch Metal Plates | 1 per 2.0 ft ² | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -52.5 |
| W-2. | Min. 19/32-inch APA rated plywood; 2 ft span; 0.113" x 2 3/8" ring shank nails, 6" o.c. | (Optional) One or more layers, any combination | Min. 7/16-inch DEXcell Cement Roof Board | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners and Duro-Last 3-inch Metal Plates | 1 per 2.0 ft ² | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV | -52.5 |
| W-3. | Min. 19/32-inch APA rated plywood; 2 ft span; 0.113" x 2 3/8" ring shank nails, 6" o.c. | (Optional) One or more layers, any combination | Min. 7/16-inch DEXcell Cement Roof Board | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners and Duro-Last 3-inch Metal Plates | 1 per 2.0 ft ² | Duro-Last, Duro-Last EV or Duro-Tuff / WB II | -60.0 |
| W-4. | Min. 19/32-inch APA rated plywood; 2 ft span; 0.113" x 2 3/8" ring shank nails, 6" o.c. | (Optional) One or more layers, any combination | Min. 0.25-inch DEXcell FA Glass Mat Roof Board | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners and Duro-Last 3-inch Metal Plates | 1 per 1.8 ft ² | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -67.5 |
| W-5. | Min. 19/32-inch APA rated plywood; 2 ft span; 0.113" x 2 3/8" ring shank nails, 6" o.c. | (Optional) One or more layers, any combination | Min. 7/16-inch DEXcell Cement Roof Board | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners and Duro-Last 3-inch Metal Plates | 1 per 1.8 ft ² | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV | -67.5 |
| W-6. | Min. 19/32-inch APA rated plywood; 2 ft span; 0.113" x 2 3/8" ring shank nails, 6" o.c. | (Optional) One or more layers, any combination | Min. 7/16-inch DEXcell Cement Roof Board | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners and Duro-Last 3-inch Metal Plates | 1 per 1.8 ft ² | Duro-Last, Duro-Last EV or Duro-Tuff / WB II | -75.0 |
| DURO-FLEECE OR DURO-FLEECE PLUS MEMBRANE APPLICATIONS: | | | | | | | |
| W-7. | Min. 19/32-inch APA rated plywood; 2 ft span; 0.113" x 2 3/8" ring shank nails, 6" o.c. | (Optional) One or more layers, any combination | Min. 0.25-inch DEXcell FA Glass Mat Roof Board | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners and Duro-Last 3-inch Metal Plates | 1 per 2.0 ft ² | Duro-Fleece or Duro-Fleece Plus / Trufast Roofing Adhesive (SPLATTER) or WB II | -52.5 |
| W-8. | Min. 19/32-inch APA rated plywood; 2 ft span; 0.113" x 2 3/8" ring shank nails, 6" o.c. | (Optional) One or more layers, any combination | Min. 0.25-inch DEXcell FA Glass Mat Roof Board | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners and Duro-Last 3-inch Metal Plates | 1 per 2.0 ft ² | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (splatler applied) | -60.0 |
| W-9. | Min. 19/32-inch APA rated plywood; 2 ft span; 0.113" x 2 3/8" ring shank nails, 6" o.c. | (Optional) One or more layers, any combination | Min. 7/16-inch DEXcell Cement Roof Board | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners and Duro-Last 3-inch Metal Plates | 1 per 2.0 ft ² | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (splatler applied), Trufast Roofing Adhesive (SPLATTER) or WB II | -60.0 |
| W-10. | Min. 19/32-inch APA rated plywood; 2 ft span; 0.113" x 2 3/8" ring shank nails, 6" o.c. | (Optional) One or more layers, any combination | Min. 0.25-inch DEXcell FA Glass Mat Roof Board | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners and Duro-Last 3-inch Metal Plates | 1 per 1.8 ft ² | Duro-Fleece or Duro-Fleece Plus / Trufast Roofing Adhesive (SPLATTER) or WB II | -67.5 |
| W-11. | Min. 19/32-inch APA rated plywood; 2 ft span; 0.113" x 2 3/8" ring shank nails, 6" o.c. | (Optional) One or more layers, any combination | Min. 0.25-inch DEXcell FA Glass Mat Roof Board | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners and Duro-Last 3-inch Metal Plates | 1 per 1.8 ft ² | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (splatler applied) | -75.0 |

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

| System No. | Deck (Note 1) | Base Insulation Layer | Top Insulation Layer | | | Roof Cover (Note 16) | MDP (psf) |
|------------|---|--|--|--|---------------------------|--|-----------|
| | | | Type | Fasteners | Attach | | |
| W-12. | Min. 19/32-inch APA rated plywood; 2 ft span; 0.113" x 2 3/8" ring shank nails, 6" o.c. | (Optional) One or more layers, any combination | Min. 7/16-inch DEXcell Cement Roof Board | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners and Duro-Last 3-inch Metal Plates | 1 per 1.8 ft ² | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (splatter applied), Trufast Roofing Adhesive (splatter applied) or WB II | -75.0 |

**TABLE 1B: WOOD DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, PLATE-BONDED ROOF COVER**

| System No. | Deck (Note 1) | Insulation Layer (Note 14) | Attach | | Roof Cover / Attach | MDP (psf) | |
|-----------------------------------|--|--|---|---|---|--|-------|
| | | | Fasteners | Density | | | |
| RHINO BOND INDUCTION WELD: | | | | | | | |
| W-13. | Min. 19/32-inch plywood; 2 ft span; 0.113" x 2-3/8" ring shank nails, 6" o.c. at perimeter & 12" o.c. in field | (Optional) One or more layers, any combination; preliminarily attached | Duro-Last #14 HD with RHINO BOND Insulation Plate (PVC) | Fasteners 12-inch o.c. in rows spaced 48-inch o.c. positioned atop wood trusses; minimum 0.9-inch fastener embedment into trusses | | Duro-Last (min. 60 mil) , Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded to RHINO BOND Insulation Plate (PVC) using RHINO BOND Installation Tool | -52.5 |
| W-14. | Min. 19/32-inch plywood; 2 ft span; 0.113" x 2-3/8" ring shank nails, 6" o.c. at perimeter & 12" o.c. in field | (Optional) One or more layers, any combination; preliminarily attached | Duro-Last #14 HD with RHINO BOND Insulation Plate (PVC) | Fasteners 6-inch o.c. in rows spaced 96-inch o.c. positioned atop wood trusses; minimum 0.9-inch fastener embedment into trusses | | Duro-Last (min. 60 mil) , Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded to RHINO BOND Insulation Plate (PVC) using RHINO BOND Installation Tool | -60.0 |
| W-15. | Min. 19/32-inch plywood; 2 ft span; 0.113" x 2-3/8" ring shank nails, 6" o.c. at perimeter & 12" o.c. in field | One or more layers, any combination; min. 1.5-inch, min. 16 psi | Duro-Last #14 HD with RHINO BOND Insulation Plate (PVC) | 1 per 2.7 ft ² (12 parts per 4 x 8 ft bird; Fasteners engage wood trusses, minimum 0.9-inch embedment) |  | Duro-Last (min. 40 mil), Duro-Tuff (min. 50 mil) or Duro-Last EV (min. 50-mil) induction welded to RHINO BOND Insulation Plate (PVC) using RHINO BOND Installation Tool | -60.0 |
| W-16. | Min. 19/32-inch plywood; 2 ft span; 0.113" x 2-3/8" ring shank nails, 6" o.c. at perimeter & 12" o.c. in field | One or more layers, any combination; min. 1.5-inch, min. 16 psi | Duro-Last #14 HD with RHINO BOND Insulation Plate (PVC) | 1 per 2.0 ft ² (16 parts per 4 x 8 ft brd; Fasteners engage wood trusses, minimum 0.9-inch embedment) |  | Duro-Last (min. 40 mil), Duro-Tuff (min. 50 mil) or Duro-Last EV (min. 50-mil) induction welded to RHINO BOND Insulation Plate (PVC) using RHINO BOND Installation Tool | -90.0 |

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

| System No. | Deck (Note 1) | Insulation (Note 14) | | Roof Cover | | | MDP (psf) |
|-------------------------------|--|---|------------------|---------------------------|--|---|-----------|
| | | Type | Attach (Note 5) | Membrane | Fasteners | Attach | |
| STANDARD LAP SYSTEMS: | | | | | | | |
| W-17. | Min. 19/32-inch plywood at max. 24-inch spans; 8d ring shank nails, 6" o.c. | (Optional) One or more layers, any combination | Prelim. attached | Duro-Last, min. 40 mil | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners and Duro-Last 2.4-inch Barbed Metal Plate | <u>Standard Lap System</u> fastened 6-inch o.c. within 6-inch wide tabs spaced 57-inch o.c. <i>Screws located 2.7-inches from tab edge</i> | -52.5 |
| W-18. | Min. 19/32-inch APA rated CDX plywood at max. 32-inch spans; #9 wood screws, 6" o.c. | 0.5-inch Duro-Guard EPS Fan Fold and/or min. 1-inch Duro-Guard ISO II-H, Duro-Guard ISO II-G, Duro-Guard ISO II-A, Duro-Guard ISO III-H or Duro-Guard ISO III-A | Prelim. attached | Duro-Last, min. 40-mil | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners and Duro-Last Poly-Plates or Duro-Last Cleat Plates | <u>Standard Lap System</u> fastened 6-inch o.c. within 6-inch wide tabs spaced 58-inch o.c. | -52.5 |
| W-19. | Min. 19/32-inch APA rated CDX plywood at max. 32-inch spans; #9 wood screws, 6" o.c. | 0.5-inch Duro-Guard EPS Fan Fold and/or min. 1-inch Duro-Guard ISO II-H, Duro-Guard ISO II-G, Duro-Guard ISO II-A, Duro-Guard ISO III-H or Duro-Guard ISO III-A | Prelim. attached | Duro-Last EV, min. 50-mil | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners and Duro-Last Poly-Plates or Duro-Last Cleat Plates | <u>Standard Lap System</u> fastened 6-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Lap sealed with 1.5-inch heat weld | -52.5 |
| W-20. | Min. 19/32-inch APA rated CDX plywood at max. 32-inch spans; #9 wood screws, 6" o.c. | 0.5-inch Duro-Guard EPS Fan Fold and/or min. 1-inch Duro-Guard ISO II-H, Duro-Guard ISO II-G, Duro-Guard ISO II-A, Duro-Guard ISO III-H or Duro-Guard ISO III-A | Prelim. attached | Duro-Tuff, min. 50-mil | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners and Duro-Last Cleat Plates | <u>Standard Lap System</u> fastened 6-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Lap sealed with 1.5-inch heat weld | -52.5 |
| DURO-ROOF LAP SYSTEMS: | | | | | | | |
| W-21. | Min. 19/32-inch plywood at max. 24-inch spans; 8d ring shank nails, 6" o.c. | (Optional) One or more layers, any combination | Prelim. attached | Duro-Last, min. 40 mil | Duro-Last #14 HD Fasteners with Duro-Last 3-inch Metal Plates | <u>Duro-Roof Lap System</u> fastened 6-inch o.c. within 6-inch wide tabs spaced 57-inch o.c. Tab Sealer 4725 at max. 60 ft ² /gal. | -52.5 |
| W-22. | Nominal 1 x 6 –inch T&G board decking attached per FBC Section 2322.2.2 | One or more layers, any combination, min. 1.5-inch | Prelim. Attached | Duro-Last, min. 40 mil | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners with OMG 2-3/8" Eyehook Plates | <u>Duro-Roof Lap System</u> fastened 6-inch o.c. within 6-inch wide tabs spaced 25-inch o.c. Tab Sealer 4725 at max. 60 ft ² /gal. | -97.5 |

**TABLE 2A: STEEL DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

| System No. | Deck (Note 1) | Base Insulation Layer | | Top Insulation Layer | | Roof Cover (Note 16) | MDP (psf)* |
|---|--|-----------------------------------|---|--|---------------------|--|------------|
| | | Type | Attach (Note 6,7&8) | Type | Attach (Note 6,7&8) | | |
| BAREBACK MEMBRANE APPLICATIONS: | | | | | | | |
| S-1. | 22 ga., Type B, Grade 60 steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | Min. 1.5-inch Duro-Guard ISO II-H | M-OSA, 12-inch o.c. (every-other deck flange) | Min. 0.25-inch DEXcell FA Glass Mat Roof Board | M-OSA | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV | -75.0 |
| S-2. | 22 ga., Type B, Grade 60 steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | Min. 1.5-inch Duro-Guard ISO II-H | M-OSA, 12-inch o.c. (every-other deck flange) | (Optional) Additional layer(s) base insulation | M-OSA | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV | -82.5 |
| S-3. | 22 ga., Type B, Grade 60 steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | Min. 1.5-inch Duro-Guard ISO II-H | M-OSA, 12-inch o.c. (every-other deck flange) | Min. 0.25-inch DEXcell FA Glass Mat Roof Board | M-OSA | Duro-Last, Duro-Last EV or Duro-Tuff / WB II | -75.0 |
| S-4. | 22 ga., Type B, Grade 60 steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | Min. 1.5-inch Duro-Guard ISO II-H | M-OSA, 12-inch o.c. (every-other deck flange) | (Optional) Additional layer(s) base insulation | M-OSA | Duro-Last, Duro-Last EV or Duro-Tuff / WB II | -82.5 |
| DURO-FLEECE OR DURO-FLEECE PLUS MEMBRANE APPLICATIONS: | | | | | | | |
| S-5. | 22 ga., Type B, Grade 60 steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | Min. 1.5-inch Duro-Guard ISO II-H | M-OSA, 12-inch o.c. (every-other deck flange) | Min. 0.25-inch DEXcell FA Glass Mat Roof Board | M-OSA | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (splatter applied), Trufast Roofing Adhesive (SPLATTER) or WB II | -75.0 |
| S-6. | 22 ga., Type B, Grade 60 steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | Min. 1.5-inch Duro-Guard ISO II-H | M-OSA, 12-inch o.c. (every-other deck flange) | (Optional) Additional layer(s) base insulation | M-OSA | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (splatter applied) or WB II | -82.5 |

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

| System No. | Deck (Note 1) | Base Insulation Layer | | | Top Insulation Layer | | Roof Cover (Note 16) | MDP (psf) |
|---|--|---|-----------|---------------------------|--|---|---|-----------|
| | | Type | Fasteners | Attach | Type | Attach (Note 6,7&8) | | |
| BAREBACK MEMBRANE APPLICATIONS: | | | | | | | | |
| S-7. | Min. 22 ga., Type B, Grade 33 steel or structural concrete | Min. 2-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | Note 2 | 1 per 2.7 ft ² | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Hot asphalt or Board-Max, CR-20, INSTA STIK Quik Set or Trufast Roofing Adhesive | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -45.0* |
| S-8. | Min. 22 ga., Type B, Grade 33 steel or structural concrete | Min. 2-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | Note 2 | 1 per 2.7 ft ² | Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board | Hot asphalt, INSTA STIK Quik Set, OB500 or M-OSA | Duro-Last / SB IV | -45.0* |
| S-9. | Min. 22 ga., Type B, Grade 33 steel or structural concrete | Min. 2-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | Note 2 | 1 per 2.7 ft ² | Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board | Hot asphalt, INSTA STIK Quik Set, OB500 or M-OSA | Duro-Last or Duro-Tuff / WB II | -45.0* |
| S-10. | Min. 22 ga., Type B, Grade 33 steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. or structural concrete | Min. 2-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | Note 2 | 1 per 1.3 ft ² | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Hot asphalt or Board-Max, CR-20, INSTA STIK Quik Set or Trufast Roofing Adhesive, 6-inch o.c. | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -60.0 |
| DURO-FLEECE OR DURO-FLEECE PLUS MEMBRANE APPLICATIONS: | | | | | | | | |
| S-11. | Min. 22 ga., Type B, Grade 33 steel or structural concrete | Min. 2-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | Note 2 | 1 per 2.7 ft ² | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Hot asphalt or Board-Max, CR-20, INSTA STIK Quik Set or Trufast Roofing Adhesive, 6-inch o.c. | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (splatter applied) or WB II | -45.0* |
| S-12. | Min. 22 ga., Type B, Grade 33 steel or structural concrete | Min. 2-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | Note 2 | | Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board | Hot asphalt, INSTA STIK Quik Set, OB500 or M-OSA | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER) or WB II | -45.0* |
| S-13. | Min. 22 ga., Type B, Grade 33 steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. or structural concrete | Min. 2-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | Note 2 | 1 per 1.3 ft ² | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Hot asphalt or Board-Max, CR-20, INSTA STIK Quik Set or Trufast Roofing Adhesive, 6-inch o.c. | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (splatter applied) or WB II | -60.0 |

**TABLE 2C: STEEL OR STRUCTURAL CONCRETE - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER**

| System No. | Deck (Note 1) | Base Insulation Layer | Top Insulation Layer | | | Roof Cover (Note 16) | MDP (psf) |
|---|--|--|---|-----------|---------------------------|---|-----------|
| | | | Type | Fasteners | Attach | | |
| DURO-LAST MEMBRANE APPLICATIONS: | | | | | | | |
| S-14. | Min. 22 ga., Type B, Grade 33 steel or structural concrete | (Optional) One or more layers, any combination | Min. 1.5-inch ACfoam II, Duro-Guard ISO II-A | Note 2 | 1 per 2.0 ft ² | Duro-Last / WB I | -45.0* |
| S-15. | Min. 22 ga., Type B, Grade 33 steel or structural concrete | (Optional) One or more layers, any combination | Min. 1.5-inch ACfoam II, Duro-Guard ISO II-A | Note 2 | 1 per 2.0 ft ² | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV | -45.0* |
| S-16. | Min. 22 ga., Type B, Grade 33 steel or structural concrete | (Optional) One or more layers, any combination | Min. 2-inch ACfoam II, Duro-Guard ISO II-A or ACfoam III, Duro-Guard ISO III-A | Note 2 | 1 per 4.0 ft ² | Duro-Last / SB I | -45.0* |
| S-17. | Min. 22 ga., Type B, Grade 33 steel or structural concrete | (Optional) One or more layers, any combination | Min. 2-inch ACfoam III, Duro-Guard ISO III-A | Note 2 | 1 per 4.0 ft ² | Duro-Last / WB I | -45.0* |
| S-18. | Min. 22 ga., Type B, Grade 33 steel or structural concrete | One or more layers, any combination, min. 1.5-inch thick | Min. 0.25-inch Invinsa Roof Board | Note 2 | 1 per 2.0 ft ² | Duro-Last / SB IV | -45.0* |
| S-19. | Min. 22 ga., Type B, Grade 33 steel or structural concrete | (Optional) One or more layers, any combination | Min. 0.25-inch Dens Deck or Dens Deck Prime | Note 2 | 1 per 2.0 ft ² | Duro-Last / SB I or WB II | -45.0* |
| S-20. | Min. 22 ga., Type B, Grade 33 steel or structural concrete | (Optional) One or more layers, any combination | Min. 0.25-inch Dens Deck or Dens Deck Prime | Note 2 | 1 per 2.0 ft ² | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -45.0* |
| S-21. | Min. 22 ga., Type B, Grade 33 steel or structural concrete | (Optional) One or more layers, any combination | Min. 0.625-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board | Note 2 | 1 per 5.3 ft ² | Duro-Last / SB IV | -45.0* |
| S-22. | Min. 22 ga., Type B, Grade 33 steel or structural concrete | (Optional) One or more layers, any combination | Min. 0.625-inch DEXcell FA Glass Mat Roof Board | Note 2 | 1 per 5.3 ft ² | Duro-Last or Duro-Tuff / WB II | -45.0* |
| S-23. | Min. 22 ga., Type B, Grade 33 steel or structural concrete | (Optional) One or more layers, any combination | Min. 0.5-inch DEXcell FA Glass Mat Roof Board | Note 2 | 1 per 4.0 ft ² | Duro-Last / SB IV | -45.0* |
| S-24. | Min. 22 ga., Type B, Grade 33 steel or structural concrete | (Optional) One or more layers, any combination | Min. 0.5-inch DEXcell FA Glass Mat Roof Board | Note 2 | 1 per 4.0 ft ² | Duro-Last or Duro-Tuff / WB II | -45.0* |
| S-25. | Min. 22 ga., Type B, Grade 33 steel or structural concrete | (Optional) One or more layers, any combination | Min. 0.25-inch DEXcell FA Glass Mat Roof Board | Note 2 | 1 per 3.2 ft ² | Duro-Last / SB IV | -45.0* |
| S-26. | Min. 22 ga., Type B, Grade 33 steel or structural concrete | (Optional) One or more layers, any combination | Min. 0.25-inch DEXcell FA Glass Mat Roof Board | Note 2 | 1 per 3.2 ft ² | Duro-Last or Duro-Tuff / WB II | -45.0* |
| S-27. | Min. 22 ga., Type B, Grade 33 steel or structural concrete | (Optional) One or more layers, any combination | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Note 2 | 1 per 2.0 ft ² | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -45.0* |
| S-28. | Min. 22 ga., Type B, Grade 33 steel or structural concrete | (Optional) One or more layers, any combination | Min. 5/8-inch SECUROCK Gypsum-Fiber Roof Board | Note 2 | 1 per 4.0 ft ² | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -45.0* |
| S-29. | Min. 22 ga., Type B, Grade 33 steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. or structural concrete | One or more layers, any combination, min. 1.5-inch thick | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Note 2 | 1 per 1.3 ft ² | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -67.5 |

**TABLE 2C: STEEL OR STRUCTURAL CONCRETE - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER**

| System No. | Deck (Note 1) | Base Insulation Layer | Top Insulation Layer | | | Roof Cover (Note 16) | MDP (psf) |
|---|--|--|--|---|---------------------------|--|-----------|
| | | | Type | Fasteners | Attach | | |
| S-30. | Min. 22 ga., Type B, Grade 33 steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. or structural concrete | One or more layers, any combination, min. 1.5-inch thick | Min. 0.25-inch Dens Deck Prime | Note 2 (#15 Extra Heavy Duty only) | 1 per 1.7 ft ² | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV | -67.5 |
| S-31. | Min. 22 ga., Type B, Grade 33 steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 2-inch total thickness | Min. 0.5-inch SECUROCK Gypsum Fiber Roof Board | Trufast #12 DP with Trufast 3" Metal Insulation Plate | 1 per 1.0 ft ² | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -97.5 |
| DURO-FLEECE OR DURO-FLEECE PLUS MEMBRANE APPLICATIONS: | | | | | | | |
| S-32. | Min. 22 ga., Type B, Grade 33 steel or structural concrete | (Optional) One or more layers, any combination | Min. 1.5-inch ACfoam II, Duro-Guard ISO II-A, ACfoam III, Duro-Guard ISO III-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3, Duro-Guard ISO II-G or ISO 95+ GLISO | Note 2 | 1 per 2.0 ft ² | Duro-Fleece or Duro-Fleece Plus / WB II | -45.0* |
| S-33. | Min. 22 ga., Type B, Grade 33 steel or structural concrete | (Optional) One or more layers, any combination | Min. 0.625-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board | Note 2 | 1 per 5.3 ft ² | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER) or WB II | -45.0* |
| S-34. | Min. 22 ga., Type B, Grade 33 steel or structural concrete | (Optional) One or more layers, any combination | Min. 0.5-inch DEXcell FA Glass Mat Roof Board | Note 2 | 1 per 4.0 ft ² | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER) or WB II | -45.0* |
| S-35. | Min. 22 ga., Type B, Grade 33 steel or structural concrete | (Optional) One or more layers, any combination | Min. 0.25-inch DEXcell FA Glass Mat Roof Board | Note 2 | 1 per 3.2 ft ² | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER) or WB II | -45.0* |
| S-36. | Min. 22 ga., Type B, Grade 33 steel or structural concrete | (Optional) One or more layers, any combination | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Note 2 | 1 per 2.0 ft ² | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER), Trufast Roofing Adhesive (SPLATTER) or WB II | -45.0* |
| S-37. | Min. 22 ga., Type B, Grade 33 steel or structural concrete | (Optional) One or more layers, any combination | Min. 5/8-inch SECUROCK Gypsum-Fiber Roof Board | Note 2 | 1 per 4.0 ft ² | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER), Trufast Roofing Adhesive (SPLATTER) or WB II | -45.0* |
| S-38. | Min. 22 ga., Type B, Grade 33 steel or structural concrete | (Optional) One or more layers, any combination | Min. 0.5-inch Dens Deck | Note 2 | 1 per 2.0 ft ² | Duro-Fleece or Duro-Fleece Plus / WB II | -45.0* |
| S-39. | Min. 22 ga., Type B, Grade 33 steel or structural concrete | (Optional) One or more layers, any combination | Min. 1.5-inch ACfoam II, Duro-Guard ISO II-A, ACfoam III or ISO 95+ GL | Note 2 | 1 per 2.0 ft ² | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece Adhesive | -45.0* |
| S-40. | Min. 22 ga., Type B, Grade 33 steel or structural concrete | (Optional) One or more layers, any combination | Min. 0.5-inch Dens Deck | Note 2 | 1 per 2.0 ft ² | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece Adhesive | -45.0* |
| S-41. | Min. 22 ga., Type B, Grade 33; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. steel or structural concrete | One or more layers, any combination, min. 1.5-inch thick | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Note 2 | 1 per 1.3 ft ² | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (splatter) or WB II | -67.5 |

TABLE 2C: STEEL OR STRUCTURAL CONCRETE - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

| System No. | Deck (Note 1) | Base Insulation Layer | Top Insulation Layer | | | Roof Cover (Note 16) | MDP (psf) |
|------------|--|---|--|---|---------------------------|---|-----------|
| | | | Type | Fasteners | Attach | | |
| S-42. | Min. 22 ga., Type B, Grade 33; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. steel or structural concrete | One or more layers, any combination, min. 1.5-inch thick | Min. 0.25-inch Dens Deck Prime | Note 2 (#15 Extra Heavy Duty only) | 1 per 1.7 ft ² | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (splatter) | -67.5 |
| S-43. | Min. 22 ga., Type B, Grade 33 steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. or structural concrete | (Optional) One or more layers, any combination, min. 1.5-inch thick | Min. 0.25-inch Dens Deck Prime | Note 2 | 1 per 1.3 ft ² | Duro-Fleece or Duro-Fleece Plus / WB II | -67.5 |
| S-44. | Min. 22 ga., Type B, Grade 33 steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 1.5-inch total thickness | Min. 0.5-inch SECUROCK Gypsum Fiber Roof Board | Trufast #12 DP with Trufast 3" Metal Insulation Plate | 1 per 1.0 ft ² | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (splatter) or WB II | -97.5 |

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

| System No. | Deck (Note 1) | Insulation Layer (Note 14) | Attach | | Roof Cover / Attach | MDP (psf) |
|-----------------------------------|--|---|---|---|---|-----------|
| | | | Fasteners | Density | | |
| RHINO BOND INDUCTION WELD: | | | | | | |
| S-45. | Min. 22 ga., type B, Grade 33 steel | One or more layers, any combination | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners with RHINO BOND Insulation Plate (PVC) | 1 per 6 ft ² (24 x 36 inch grid pattern) | Duro-Last (min. 40-mil), Duro-Tuff (min. 50-mil) or Duro-Last EV (min. 50-mil) induction welded to RHINO BOND Insulation Plate (PVC) using RHINO BOND Installation Tool | -45.0* |
| S-46. | Min. 22 ga., type B, Grade 33 steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners with RHINO BOND Insulation Plate (PVC) | 1 per 2.29 ft ² (14 parts per 4 x 8 ft board in 18 x 18 inch grid pattern) | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded to RHINO BOND Insulation Plate (PVC) using RHINO BOND Installation Tool | -45.0 |
| S-47. | Min. 20 ga., Type N, Grade 40 steel; 10 ft span; #12 HWH Tek 5 screws, 8" o.c. | One or more layers DURO-GUARD ISO II-A, DURO-GUARD ISO II-G, DURO-GUARD ISO II-H, DURO-GUARD ISO III-A or DURO-GUARD ISO III-H; top layer min. 1-inch | OMG XHD with RHINO BOND Insulation Plate (PVC) | 1 per 4.0 ft ² (8 parts per 4 x 8 ft board) <i>Parts spaced 24" o.c. in rows spaced 24" o.c., while maintaining fastener engagement with the top flange of the Type N deck profile. Every-other set of two (2) rows is staggered 8-inches from the previous set.</i> | Duro-Last (min. 40-mil), Duro-Tuff (min. 50-mil) or Duro-Last EV (min. 50-mil) induction welded to RHINO BOND Insulation Plate (PVC) using RHINO BOND Installation Tool | -52.5 |
| S-48. | Min. 18 ga., type B, Grade 33 steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, preliminarily attached (Note 5) | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners with RHINO BOND Insulation Plate (PVC) | 6-inch o.c. in rows spaced 120-inch o.c. | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded to RHINO BOND Insulation Plate (PVC) using RHINO BOND Installation Tool | -45.0 |
| S-49. | Min. 18 ga., type B, Grade 33 steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, preliminarily attached (Note 5) | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners with RHINO BOND Insulation Plate (PVC) | 12-inch o.c. in rows spaced 48-inch o.c. | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded to RHINO BOND Insulation Plate (PVC) using RHINO BOND Installation Tool | -45.0 |
| S-50. | Min. 18 ga., type B, Grade 33 steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, preliminarily attached (Note 5) | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners with RHINO BOND Insulation Plate (PVC) | 6-inch o.c. in rows spaced 72-inch o.c. | Duro-Last (min. 40-mil), Duro-Tuff (min. 50-mil) or Duro-Last EV (min. 50-mil) induction welded to RHINO BOND Insulation Plate (PVC) using RHINO BOND Installation Tool | -52.5 |

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

| System No. | Deck (Note 1) | Insulation Layer (Note 14) | Attach | | Roof Cover / Attach | MDP (psf) |
|--------------------------------|---|---|---|--|--|-----------|
| | | | Fasteners | Density | | |
| S-51. | Min. 18 ga., type B, Grade 33 steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, preliminarily attached (Note 5) | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners with RHINO BOND Insulation Plate (PVC) | 6-inch o.c. in rows spaced 96-inch o.c. | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded to RHINO BOND Insulation Plate (PVC) using RHINO BOND Installation Tool | -52.5 |
| S-52. | Min. 18 ga., type B, Grade 33 steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, preliminarily attached (Note 5) | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners with RHINO BOND Insulation Plate (PVC) | 6-inch o.c. in rows spaced 48-inch o.c. | Duro-Last (min. 40-mil), Duro-Tuff (min. 50-mil) or Duro-Last EV (min. 50-mil) induction welded to RHINO BOND Insulation Plate (PVC) using RHINO BOND Installation Tool | -82.5 |
| S-53. | Min. 18 ga., type B, Grade 33 steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, preliminarily attached (Note 5) | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners with RHINO BOND Insulation Plate (PVC) | 6-inch o.c. in rows spaced 60-inch o.c. | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded to RHINO BOND Insulation Plate (PVC) using RHINO BOND Installation Tool | -82.5 |
| S-54. | Min. 18 ga., type B, Grade 33 steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, preliminarily attached (Note 5) | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners with RHINO BOND Insulation Plate (PVC) | 6-inch o.c. in rows spaced 48-inch o.c. | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded to RHINO BOND Insulation Plate (PVC) using RHINO BOND Installation Tool | -90.0 |
| ISOWELD INDUCTION WELD: | | | | | | |
| S-55. | Min. 22 ga., type B, Grade 40 steel; 6 ft span; 5/8" puddle welds, 6" o.c. | One or more layers, any combination, min. 1.5-inch | SFS Intec Dekfast DF-#15-PH3 with <i>isoweld</i> ® F1-P-6.8-PVC Plates | 4 ft ² per fastener 2 x 2-ft grid, staggered | Duro-Last (min. 40 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded to SFS <i>isoweld</i> ® F1-P-6.8-PVC Plates with SFS <i>isoweld</i> ® 3000 stand-up tool | -52.5 |
| S-56. | Min. 22 ga., type B, Grade 80 steel; 6 ft span; 5/8" puddle welds, 6" o.c. | One or more layers, any combination, min. 1.5-inch | SFS Intec Dekfast DF-#12-PH3 or DF-#15-PH3 Fastener with <i>isoweld</i> ® F1-P-6.8-PVC Plates | 4 ft ² per fastener 2 x 2-ft grid, staggered | Duro-Last (min. 40 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded to SFS <i>isoweld</i> ® F1-P-6.8-PVC Plates with SFS <i>isoweld</i> ® 3000 stand-up tool | -52.5 |
| S-57. | Min. 22 ga., type B, Grade 40 steel; 6 ft span; 5/8" puddle welds, 6" o.c. | One or more layers, any combination, min. 1.5-inch | SFS Intec Dekfast DF-#15-PH3 with <i>isoweld</i> ® F1-P-6.8-PVC Plates | 3 ft ² per fastener 1.5 x 2-ft grid, staggered | Duro-Last (min. 40 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded to SFS <i>isoweld</i> ® F1-P-6.8-PVC Plates with SFS <i>isoweld</i> ® 3000 stand-up tool | -82.5 |
| S-58. | Min. 22 ga., type B, Grade 80 steel; 6 ft span; 5/8" puddle welds, 6" o.c. | One or more layers, any combination, min. 1.5-inch | SFS Intec Dekfast DF-#12-PH3 or DF-#15-PH3 Fastener with <i>isoweld</i> ® F1-P-6.8-PVC Plates | 3 ft ² per fastener 1.5 x 2-ft grid, staggered | Duro-Last (min. 40 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded to SFS <i>isoweld</i> ® F1-P-6.8-PVC Plates with SFS <i>isoweld</i> ® 3000 stand-up tool | -82.5 |
| S-59. | Min. 22 ga., type B, Grade 40 steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 1.5-inch, preliminarily attached (Note 5) | SFS Intec Dekfast DF-#15-PH3 with <i>isoweld</i> ® F1-P-6.8-PVC Plates | 12-inch o.c. in rows spaced 60-inch o.c. | Duro-Last (min. 40 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded to SFS <i>isoweld</i> ® F1-P-6.8-PVC Plates with SFS <i>isoweld</i> ® 3000 stand-up tool | -45.0 |
| S-60. | Min. 22 ga., type B, Grade 80 steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 1.5-inch, preliminarily attached (Note 5) | SFS Intec Dekfast DF-#12-PH3 or DF-#15-PH3 Fastener with <i>isoweld</i> ® F1-P-6.8-PVC Plates | 12-inch o.c. in rows spaced 60-inch o.c. | Duro-Last (min. 40 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded to SFS <i>isoweld</i> ® F1-P-6.8-PVC Plates with SFS <i>isoweld</i> ® 3000 stand-up tool | -45.0 |
| S-61. | Min. 22 ga., type B, Grade 40 steel; 5 ft span, #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 1.5-inch, preliminarily attached (Note 5) | SFS Intec Dekfast DF-#15-PH3 with <i>isoweld</i> ® F1-P-6.8-PVC Plates | 6-inch o.c. in rows spaced 60-inch o.c. | Duro-Last (min. 40 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded to SFS <i>isoweld</i> ® F1-P-6.8-PVC Plates with SFS <i>isoweld</i> ® 3000 stand-up tool | -90.0 |
| S-62. | Min. 22 ga., type B, Grade 80 steel; 5 ft span, #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 1.5-inch, preliminarily attached (Note 5) | SFS Intec Dekfast DF-#12-PH3 or DF-#15-PH3 Fastener with <i>isoweld</i> ® F1-P-6.8-PVC Plates | 6-inch o.c. in rows spaced 60-inch o.c. | Duro-Last (min. 40 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded to SFS <i>isoweld</i> ® F1-P-6.8-PVC Plates with SFS <i>isoweld</i> ® 3000 stand-up tool | -90.0 |
| TRUFAST INDUCTION WELD: | | | | | | |

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

| System No. | Deck (Note 1) | Insulation Layer (Note 14) | Attach | | Roof Cover / Attach | MDP (psf) |
|------------|---|--|---|---|--|-----------|
| | | | Fasteners | Density | | |
| S-63. | Min. 22 ga., type B, Grade 33 steel | One or more layers, any combination, min. 2-inch | Trufast #15 EHD with Trufast PVC IW Plate | 1 per 5.3 ft ² (6 parts per 4x8 ft board on a 24x36-inch pattern) | Duro-Last (min. 40 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -45.0* |
| S-64. | Min. 22 ga., type B, Grade 33 steel; 6 ft span; #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 2-inch | Trufast #15 EHD with Trufast PVC IW Plate | 1 per 4.0 ft ² (8 parts per 4x8 ft board on a 24x24-inch pattern) | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -52.5 |
| S-65. | Min. 22 ga., type B, Grade 33 steel; 6 ft span; #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 2-inch | Trufast #15 EHD with Trufast PVC IW Plate | 1 per 4.0 ft ² (8 parts per 4x8 ft board on a 24x24-inch pattern) | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -60.0 |
| S-66. | Min. 22 ga., type B, Grade 33 steel; 6 ft span; #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 2-inch | Trufast #15 EHD with Trufast PVC IW Plate | 1 per 3.2 ft ² (10 parts per 4x8 ft board on a 24x20-inch pattern) | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -60.0 |
| S-67. | Min. 22 ga., type B, Grade 33 steel; 6 ft span; #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 2-inch | Trufast #15 EHD with Trufast PVC IW Plate | 1 per 3.2 ft ² (10 parts per 4x8 ft board on a 24x20-inch pattern) | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -67.5 |
| S-68. | Min. 22 ga., type B, Grade 33 steel; 6 ft span; #12 HWH Tek 5 screws with 3/8" washers, 6" o.c. | One or more layers, any combination, min. 2-inch | Trufast #15 EHD with Trufast PVC IW Plate | 1 per 2.7 ft ² (12 parts per 4x8 ft board per FM LPDS 1-29) | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -67.5 |
| S-69. | Min. 22 ga., type B, Grade 33 steel; 6 ft span; #12 HWH Tek 5 screws with 3/8" washers, 6" o.c. | One or more layers, any combination, min. 2-inch | Trufast #15 EHD with Trufast PVC IW Plate | 1 per 2.7 ft ² (12 parts per 4x8 ft board per FM LPDS 1-29) | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -82.5 |
| S-70. | Min. 22 ga., type B, Grade 33 steel; 6 ft span; #12 HWH Tek 5 screws with 3/8" washers, 6" o.c. | One or more layers, any combination, min. 2-inch | Trufast #15 EHD with Trufast PVC IW Plate | 1 per 2.0 ft ² (16 parts per 4x8 ft board on a 12x24-inch pattern) | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -90.0 |
| S-71. | Min. 22 ga., type B, Grade 33 steel; 6 ft span; #12 HWH Tek 5 screws with 3/8" washers, 6" o.c. | One or more layers, any combination, min. 2-inch | Trufast #15 EHD with Trufast PVC IW Plate | 1 per 2.0 ft ² (16 parts per 4x8 ft board on a 12x24-inch pattern) | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -112.5 |
| S-72. | Min. 22 ga., type B, Grade 33 steel; 6 ft span; #12 HWH Tek 5 screws with 3/8" washers, 6" o.c. | One or more layers, any combination, min. 2-inch | Trufast #15 EHD with Trufast PVC IW Plate | 1 per 1.8 ft ² (18 parts per 4x8 ft board on an 18x16-inch pattern) | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -105.0 |

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

| System No. | Deck (Note 1) | Insulation Layer (Note 14) | Attach | | Roof Cover / Attach | MDP (psf) |
|------------|---|--|---|---|--|-----------|
| | | | Fasteners | Density | | |
| S-73. | Min. 22 ga., type B, Grade 33 steel; 6 ft span; #12 HWH Tek 5 screws with 3/4" washers, 6" o.c. | One or more layers, any combination, min. 2-inch | Trufast #15 EHD with Trufast PVC IW Plate | 1 per 1.8 ft ² (18 parts per 4x8 ft board on an 18x16-inch pattern) | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -120.0 |
| S-74. | Min. 22 ga., type B, Grade 33 steel; 6 ft span; two (2) #12 HWH Tek 5 screws with 3/4" washers, 6" o.c. | One or more layers, any combination, min. 2-inch | Trufast #15 EHD with Trufast PVC IW Plate | 1 per 1.3 ft ² (24 parts per 4x8 ft board on a 12x16-inch pattern) | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -135.0 |
| S-75. | Min. 22 ga., type B, Grade 33 steel; 6 ft span; two (2) #12 HWH Tek 5 screws with 3/4" washers, 6" o.c. | One or more layers, any combination, min. 2-inch | Trufast #15 EHD with Trufast PVC IW Plate | 1 per 1.3 ft ² (24 parts per 4x8 ft board on a 12x16-inch pattern) | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -172.5 |
| S-76. | Min. 22 ga., type B, Grade 33 steel; 6 ft span; two (2) #12 HWH Tek 5 screws with 3/4" washers, 6" o.c. | One or more layers, any combination, min. 2-inch | Trufast #15 EHD with Trufast PVC IW Plate | 1 per 1.0 ft ² (32 parts per 4x8 ft board per FM LPDS 1-29) | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -142.5 |
| S-77. | Min. 22 ga., type B, Grade 33 steel; 6 ft span; two (2) #12 HWH Tek 5 screws with 3/4" washers, 6" o.c. | One or more layers, any combination, min. 2-inch | Trufast #15 EHD with Trufast PVC IW Plate | 1 per 1.0 ft ² (32 parts per 4x8 ft board per FM LPDS 1-29) | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -217.5 |
| S-78. | Min. 22 ga., type B, Grade 33 steel; 6 ft span; #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 2-inch, preliminarily attached | Trufast #15 EHD with Trufast PVC IW Plate | 12-inch o.c. in rows spaced 60-inch o.c. | Duro-Last (min. 40 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -45.0 |
| S-79. | Min. 22 ga., type B, Grade 33 steel; 6 ft span; #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 2-inch, preliminarily attached | Trufast #15 EHD with Trufast PVC IW Plate | 12-inch o.c. in rows spaced 48-inch o.c. | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -52.5 |
| S-80. | Min. 22 ga., type B, Grade 33 steel; 6 ft span; #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 2-inch, preliminarily attached | Trufast #15 EHD with Trufast PVC IW Plate | 12-inch o.c. in rows spaced 48-inch o.c. | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -60.0 |
| S-81. | Min. 22 ga., type B, Grade 33 steel; 6 ft span; #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 2-inch | Trufast #15 EHD with Trufast PVC IW Plate | 12-inch o.c. in rows spaced 36-inch o.c. | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -60.0 |
| S-82. | Min. 22 ga., type B, Grade 33 steel; 6 ft span; #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 2-inch | Trufast #15 EHD with Trufast PVC IW Plate | 12-inch o.c. in rows spaced 36-inch o.c. | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -82.5 |

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

| System No. | Deck (Note 1) | Insulation Layer (Note 14) | Attach | | Roof Cover / Attach | MDP (psf) |
|------------|---|--|---|---|--|-----------|
| | | | Fasteners | Density | | |
| S-83. | Min. 22 ga., type B, Grade 33 steel; 6 ft span; #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 2-inch, preliminarily attached | Trufast #15 EHD with Trufast PVC IW Plate | 6-inch o.c. in rows spaced 72-inch o.c. | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -67.5 |
| S-84. | Min. 22 ga., type B, Grade 33 steel; 6 ft span; #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 2-inch, preliminarily attached | Trufast #15 EHD with Trufast PVC IW Plate | 6-inch o.c. in rows spaced 72-inch o.c. | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -75.0 |
| S-85. | Min. 22 ga., type B, Grade 33 steel; 6 ft span; #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 2-inch, preliminarily attached | Trufast #15 EHD with Trufast PVC IW Plate | 6-inch o.c. in rows spaced 60-inch o.c. | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -75.0 |
| S-86. | Min. 22 ga., type B, Grade 33 steel; 6 ft span; #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 2-inch, preliminarily attached | Trufast #15 EHD with Trufast PVC IW Plate | 6-inch o.c. in rows spaced 60-inch o.c. | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -90.0 |
| S-87. | Min. 22 ga., type B, Grade 33 steel; 6 ft span; #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 2-inch, preliminarily attached | Trufast #15 EHD with Trufast PVC IW Plate | 6-inch o.c. in rows spaced 48-inch o.c. | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -90.0 |
| S-88. | Min. 22 ga., type B, Grade 33 steel; 6 ft span; #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 2-inch, preliminarily attached | Trufast #15 EHD with Trufast PVC IW Plate | 6-inch o.c. in rows spaced 48-inch o.c. | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -112.5 |
| S-89. | Min. 22 ga., type B, Grade 33 steel; 6 ft span; #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 2-inch | Trufast #15 EHD with Trufast PVC IW Plate | 6-inch o.c. in rows spaced 36-inch o.c. | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -112.5 |
| S-90. | Min. 22 ga., type B, Grade 33 steel; 6 ft span; #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 2-inch | Trufast #15 EHD with Trufast PVC IW Plate | 6-inch o.c. in rows spaced 36-inch o.c. | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -150.0 |

**TABLE 2E: STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE D-1: PRELIMINARILY ATTACHED INSULATION, MECHANICALLY ATTACHED ROOF COVER**

| System No. | Deck (Note 1) | Insulation (Note 14) | | Roof Cover | | | MDP (psf) |
|------------------------------|--|---|-----------------|---------------------------|--|--|-----------|
| | | Type | Attach (Note 5) | Membrane | Fasteners | Attach | |
| STANDARD LAP SYSTEMS: | | | | | | | |
| S-91. | Min. 22 ga., type B, Grade 80 steel, 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 1.5-inch | Prelim. attach | Duro-Last, min. 40 mil | Duro-Last #14 HD Fasteners with Duro-Last Poly-Plate | <u>Standard Lap System</u> fastened 12-inch o.c. within 3-inch wide tabs spaced 60-inch o.c. | -45.0 |
| S-92. | Min. 18 ga., Type B, Grade 33 steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 1.5-inch | Prelim. attach | Duro-Last, min. 40 mil | Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Last Poly-Plate | <u>Standard Lap System</u> fastened 9-inch o.c. within 3-inch wide tabs spaced 60-inch o.c. | -45.0 |
| S-93. | Min. 22 ga., Type B, 50 ksi steel; 6 ft span; 5/8" puddle welds, 6" o.c. | One or more layers, any combination, min. 1-inch | Prelim. attach | Duro-Last EV, min. 50-mil | Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Last Poly-Plate | <u>Standard Lap System</u> fastened 12-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Laps sealed with 1.5-inch heat weld. | -45.0 |
| S-94. | Min. 22 ga., Type B, Grade 40 steel, 6 ft span, #12 HWH Tek 5 screws or 5/8" puddle welds, 6" o.c. | One or more layers, any combination, min. 1-inch | Prelim. attach | Duro-Last EV, min. 50-mil | Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Last Poly-Plate | <u>Standard Lap System</u> fastened 6-inch o.c. within 6-inch wide laps spaced 114-inch o.c. Laps sealed with 1.5-inch heat weld. | -45.0 |
| S-95. | Min. 22 ga., Type B, Grade 33 steel, 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 1.5-inch total thickness, min. 16-psi top layer | Prelim. attach | Duro-Tuff, min. 50 mil | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners with Duro-Last Cleat Plates | <u>Standard Lap System</u> fastened 12-inch o.c. within 4-inch wide laps spaced 116-inch o.c. Laps sealed with 1.5-inch heat weld. | -45.0 |
| S-96. | Min. 22 ga., type B, Grade 80 steel, 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 1.5-inch | Prelim. attach | Duro-Last, min. 40 mil | Duro-Last #14 HD Fasteners with Duro-Last Poly-Plate | <u>Standard Lap System</u> fastened 6-inch o.c. within 3-inch wide tabs spaced 120-inch o.c. | -52.5 |
| S-97. | Min. 22 ga., type B, Grade 80 steel; 6 ft span, puddle welds with weld washers, 6" o.c. | One or more layers, any combination, min. 1.5-inch | Prelim. attach | Duro-Last, min. 40 mil | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners with Duro-Last 2.4-inch Barbed Metal Plates | <u>Standard Lap System</u> fastened 6-inch o.c. within 3-inch wide tabs spaced 84-inch o.c. | -60.0 |
| S-98. | Min. 22 ga., type B, Grade 80 steel, 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 1.5-inch | Prelim. attach | Duro-Last, min. 40 mil | Duro-Last #14 HD Fasteners with Duro-Last Poly-Plate | <u>Standard Lap System</u> fastened 12-inch o.c. within 3-inch wide tabs spaced 28-inch o.c. | -60.0 |
| S-99. | Min. 22 ga., Type B, 50 ksi steel, 6 ft span, 5/8" puddle welds, 6" o.c. | One or more layers, any combination, min. 1-inch | Prelim. attach | Duro-Last EV, min. 50-mil | Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Last Cleat Plate | <u>Standard Lap System</u> fastened 6-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Laps sealed with 1.5-inch heat weld. | -67.5 |
| S-100. | Min. 22 ga., Type B, 50 ksi steel, 6 ft span, #12-24 x 1 1/4" HWH self-drilling screws, 6" o.c. | One or more layers, any combination, min. 1-inch | Prelim. attach | Duro-Last EV, min. 50-mil | Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Last Cleat Plate | <u>Standard Lap System</u> fastened 6-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Laps sealed with 1.5-inch heat weld. | -75.0 |
| S-101. | Min. 22 ga., type B, Grade 80 steel, 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 1.5-inch | Prelim. attach | Duro-Last, min. 40 mil | Duro-Last #14 HD Fasteners with Duro-Last Poly-Plate | <u>Standard Lap System</u> fastened 6-inch o.c. within 3-inch wide tabs spaced 28-inch o.c. | -105.0 |

TABLE 2E: STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE D-1: PRELIMINARILY ATTACHED INSULATION, MECHANICALLY ATTACHED ROOF COVER

| System No. | Deck (Note 1) | Insulation (Note 14) | | Roof Cover | | | MDP (psf) |
|-------------------------------|---|--|-----------------|------------------------|---|--|-----------|
| | | Type | Attach (Note 5) | Membrane | Fasteners | Attach | |
| DURO-ROOF LAP SYSTEMS: | | | | | | | |
| S-102. | Min. 22 ga., Type B, Grade 80 steel; 6 ft span, #12 HWH Tek 5 screws with 3/4" washers, 6" o.c. | One or more layers, any combination, min. 1.5-inch | Prelim. attach | Duro-Last, min. 40 mil | Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Last Cleat Plate | <u>Duro-Roof Lap System</u> fastened 12-inch o.c. within 5.75-inch wide tabs spaced 120-inch o.c. Tab Sealer 4725 at max. 60 ft ² /gal. | -45.0 |
| S-103. | Min. 22 ga., type B, Grade 80 steel; 6 ft span, puddle welds with weld washers, 6" o.c. | One or more layers, any combination, min. 1.5-inch | Prelim. attach | Duro-Last, min. 40 mil | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners with Duro-Last 3-inch Metal Plates | <u>Duro-Roof Lap System</u> fastened 12-inch o.c. within 6-inch wide tabs spaced 57-inch o.c. Tab Sealer 4725 at max. 60 ft ² /gal. | -52.5 |
| S-104. | Min. 22 ga., type B, Grade 80 steel; 6 ft span, #12 HWH Tek 5 screws with 3/4" washers, 6" o.c. | One or more layers, any combination, min. 1.5-inch | Prelim. attach | Duro-Last, min. 40 mil | Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Last Cleat Plate | <u>Duro-Roof Lap System</u> fastened 12-inch o.c. within 5.75-inch wide tabs spaced 84-inch o.c. Tab Sealer 4725 at max. 60 ft ² /gal. | -52.5 |
| S-105. | Min. 22 ga., type B, Grade 80 steel; 6 ft span, #12 HWH Tek 5 screws with 3/4" washers, 6" o.c. | One or more layers, any combination, min. 1.5-inch | Prelim. attach | Duro-Last, min. 40 mil | Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Last Cleat Plate | <u>Duro-Roof Lap System</u> fastened 12-inch o.c. within 5.75-inch wide tabs spaced 57-inch o.c. Tab Sealer 4725 at max. 60 ft ² /gal. | -67.5 |
| S-106. | Min. 22 ga., type B, Grade 80 steel; 5 ft span, #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 1.5-inch | Prelim. attach | Duro-Last, min. 40 mil | Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Last Batten Bar | <u>Duro-Roof Lap System</u> fastened 6-inch o.c. within 3-inch wide tabs spaced 60-inch o.c. Tab Sealer 4725 at max. 60 ft ² /gal. | -67.5 |
| S-107. | Min. 22 ga., type B, Grade 80 steel; 6 ft span, puddle welds with weld-washers, 6" o.c. | One or more layers, any combination, min. 1.5-inch | Prelim. attach | Duro-Last, min. 40 mil | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners with Duro-Last 3-inch Metal Plates | <u>Duro-Roof Lap System</u> fastened 6-inch o.c. within 6-inch wide tabs spaced 120-inch o.c. Tab Sealer 4725 at max. 60 ft ² /gal. | -82.5 |
| S-108. | Min. 22 ga., type B, Grade 80 steel; 6 ft span, #12 HWH Tek 5 screws with 3/4" washers, 6" o.c. | One or more layers, any combination, min. 1.5-inch | Prelim. attach | Duro-Last, min. 40 mil | Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Last Cleat Plate | <u>Duro-Roof Lap System</u> fastened 6-inch o.c. within 5.75-inch wide tabs spaced 120-inch o.c. Tab Sealer 4725 at max. 60 ft ² /gal. | -82.5 |
| S-109. | Min. 22 ga., type B, Grade 80 steel; 6 ft span, #12 HWH Tek 5 screws with 3/4" washers, 6" o.c. | One or more layers, any combination, min. 1.5-inch | Prelim. attach | Duro-Last, min. 40 mil | Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Last Cleat Plate | <u>Duro-Roof Lap System</u> fastened 6-inch o.c. within 5.75-inch wide tabs spaced 84-inch o.c. Tab Sealer 4725 at max. 60 ft ² /gal. | -97.5 |
| S-110. | Min. 22 ga., type B, Grade 80 steel; 6 ft span, #12 HWH Tek 5 screws with 3/4" washers, 6" o.c. | One or more layers, any combination, min. 1.5-inch | Prelim. attach | Duro-Last, min. 40 mil | Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Last Cleat Plate | <u>Duro-Roof Lap System</u> fastened 6-inch o.c. within 5.75-inch wide tabs spaced 57-inch o.c. Tab Sealer 4725 at max. 60 ft ² /gal. | -135.0 |
| S-111. | Min. 22 ga., type B, Grade 80 steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | One or more layers, any combination, min. 1.5-inch | Prelim. attach | Duro-Last, min. 40 mil | Duro-Last #15 Extra Heavy Duty Drill Point Fasteners with OMG 2-3/8" Eyehook Plates | <u>Duro-Roof Lap System</u> fastened 6-inch o.c. within 6-inch wide tabs spaced 25-inch o.c. Tab Sealer 4725 at max. 60 ft ² /gal. | -142.5 |

TABLE 2F: STEEL DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE D-2: THERMAL BARRIER WITH VAPOR BARRIER, PRELIMINARILY ATTACHED INSULATION, MECHANICALLY ATTACHED ROOF COVER

| System No. | Deck (Note 1) | Thermal Barrier | Vapor Barrier | Insulation | | | Slip Sheet | Roof Cover | | | MDP (psf) |
|------------|---|---|--|--|---|---|-----------------------------------|------------------------|--|---|-----------|
| | | | | Base | Top | Attach | | Membrane | Fasteners | Attach | |
| S-112. | Min. 22 ga., Type B, Grade 40 steel; 5 ft span; #12 HWH Tek 5 screws, 6" o.c. | Min. 0.25-inch Dens Deck Prime, loose-laid, adhered or mech. attached | Duro-Last Vapor Barrier, self-adhering | (Optional) One or more layers DURO-GUARD ISO II-A, DURO-GUARD ISO II-G, DURO-GUARD ISO II-H, DURO-GUARD ISO III-A or DURO-GUARD ISO III-H, DURO-GUARD EPS Type II-C or DURO-GUARD EPS FGF loose-laid | (Optional if using base layer(s) insulation) Min. 0.5-inch DURO-GUARD EPS Type II-C or DURO-GUARD EPS FGF | Duro-Last #14 Heavy Duty with Duro-Last 3-inch Metal Plates; 1 per 5.3 ft ² ; 6 parts per 4x8 ft board | Geotextile slip sheet, loose-laid | Duro-Last, min. 40 mil | Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Last Poly-Plate or Duro-Last Cleat Plate | <u>Standard Lap System</u> fastened 12-inch o.c. within 3-inch wide tabs spaced 60-inch o.c. | -52.5 |
| S-113. | Min. 22 ga., Type B, Grade 40 steel; 5 ft span; #12 HWH Tek 5 screws, 6" o.c. | Min. 0.25-inch Dens Deck Prime, loose-laid, adhered or mech. attached | Duro-Last Vapor Barrier, self-adhering | (Optional) One or more layers DURO-GUARD ISO II-A, DURO-GUARD ISO II-G, DURO-GUARD ISO II-H, DURO-GUARD ISO III-A or DURO-GUARD ISO III-H, DURO-GUARD EPS Type II-C or DURO-GUARD EPS FGF loose-laid | (Optional if using base layer(s) insulation) Min. 0.5-inch DURO-GUARD EPS Type II-C or DURO-GUARD EPS FGF | Duro-Last #14 Heavy Duty with Duro-Last 3-inch Metal Plates; 1 per 5.3 ft ² ; 6 parts per 4x8 ft board | Geotextile slip sheet, loose-laid | Duro-Tuff, min. 50 mil | Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Last Poly-Plate or Duro-Last Cleat Plate | <u>Standard Lap System</u> fastened 12-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Side laps sealed with 1.5-inch heat-weld | -52.5 |

TABLE 3A: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER
 REFER TO NOTE 17 FOR VAPOR BARRIER OPTIONS

| System No. | Deck (Note 1) | Base Insulation Layer | | Top Insulation Layer | | Roof Cover (Note 16) | MDP (psf)* |
|---|------------------------------------|---|---------------------|--|---------------------|---|------------|
| | | Type | Attach (Note 6,7&8) | Type | Attach (Note 6,7&8) | | |
| DURO-LAST MEMBRANE APPLICATIONS: | | | | | | | |
| C-1. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Ashland Pliodeck | (Optional) Additional layers of base insulation | Ashland Pliodeck | Duro-Last / SB I or WB II | -45.0 |
| C-2. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Ashland Pliodeck | (Optional) Additional layers of base insulation | Ashland Pliodeck | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -45.0 |
| C-3. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Ashland Pliodeck | (Optional) Additional layers of base insulation | Ashland Pliodeck | Duro-Last / WB I | -82.5 |
| C-4. | Min. 2,500 psi structural concrete | Min. 2-inch ISO 95+ GL | Ashland Pliodeck | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Ashland Pliodeck | Duro-Last / WB II | -217.5 |
| C-5. | Min. 2,500 psi structural concrete | Min. 2-inch ISO 95+ GL | Ashland Pliodeck | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Ashland Pliodeck | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -217.5 |
| C-6. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | Board-Max | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Board-Max | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -247.5 |
| C-7. | Min. 2,500 psi structural concrete | Min. 0.75-inch Duro-Guard EPS Type IX | Board-Max | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Board-Max | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -255.0 |
| C-8. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | CR-20 | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20 | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -247.5 |
| C-9. | Min. 2,500 psi structural concrete | Min. 0.75-inch Duro-Guard EPS IX | CR-20 | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20 | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -255.0 |
| C-10. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | CR-20 | Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board | CR-20 | Duro-Last / SB IV | -300.0 |
| C-11. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | CR-20 | Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board | CR-20 | Duro-Last or Duro-Tuff / WB II | -300.0 |
| C-12. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Hot asphalt | (Optional) Additional layers of base insulation | Hot asphalt | Duro-Last / SB I or WB II | -45.0 |
| C-13. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Hot asphalt | (Optional) Additional layers of base insulation | Hot asphalt | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -45.0 |
| C-14. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Hot asphalt | (Optional) Additional layers of base insulation | Hot asphalt | Duro-Last / WB I | -75.0 |

TABLE 3A: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER
 REFER TO NOTE 17 FOR VAPOR BARRIER OPTIONS

| System No. | Deck (Note 1) | Base Insulation Layer | | Top Insulation Layer | | Roof Cover (Note 16) | MDP (psf)* |
|------------|--|---|---------------------|--|---------------------|---|------------|
| | | Type | Attach (Note 6,7&8) | Type | Attach (Note 6,7&8) | | |
| C-15. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | Hot asphalt | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Hot asphalt | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -247.5 |
| C-16. | Min. 2,500 psi structural concrete (ASTM D41 primer) | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Hot asphalt | Min. 0.25-inch DEXcell FA Glass Mat Roof Board | Hot asphalt | Duro-Last / SB IV | -495.0 |
| C-17. | Min. 2,500 psi structural concrete (ASTM D41 primer) | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Hot asphalt | Min. 0.25-inch DEXcell FA Glass Mat Roof Board | Hot asphalt | Duro-Last or Duro-Tuff / WB II | -495.0 |
| C-18. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | INSTA STIK Quik Set | (Optional) Additional layers of base insulation | INSTA STIK Quik Set | Duro-Last / SB I or WB II | -45.0 |
| C-19. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | INSTA STIK Quik Set | (Optional) Additional layers of base insulation | INSTA STIK Quik Set | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -45.0 |
| C-20. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | INSTA STIK Quik Set | (Optional) Additional layers of base insulation | INSTA STIK Quik Set | Duro-Last / WB I | -82.5 |
| C-21. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | INSTA STIK Quik Set | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | INSTA STIK Quik Set | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -247.5 |
| C-22. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | INSTA STIK Quik Set | Min. 7/16-inch DEXcell Cement Roof Board | INSTA STIK Quik Set | Duro-Last / SB IV | -382.5 |
| C-23. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | INSTA STIK Quik Set | Min. 7/16-inch DEXcell Cement Roof Board | INSTA STIK Quik Set | Duro-Last or Duro-Tuff / WB II | -382.5 |
| C-24. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | M-OSA | Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board | M-OSA | Duro-Last / SB IV | -382.5 |
| C-25. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | M-OSA | Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board | M-OSA | Duro-Last or Duro-Tuff / WB II | -382.5 |
| C-26. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | OlyBond 500 | (Optional) Additional layers of base insulation | OlyBond 500 | Duro-Last / SB I or WB II | -45.0 |
| C-27. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | OlyBond 500 | (Optional) Additional layers of base insulation | OlyBond 500 | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -45.0 |
| C-28. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | OlyBond 500 | (Optional) Additional layers of base insulation | OlyBond 500 | Duro-Last / WB I | -82.5 |

TABLE 3A: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER
 REFER TO NOTE 17 FOR VAPOR BARRIER OPTIONS

| System No. | Deck (Note 1) | Base Insulation Layer | | Top Insulation Layer | | Roof Cover (Note 16) | MDP (psf)* |
|---|------------------------------------|---|--------------------------------|--|--------------------------------|--|------------|
| | | Type | Attach (Note 6,7&8) | Type | Attach (Note 6,7&8) | | |
| C-29. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | OlyBond 500 | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | OlyBond 500 | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -247.5 |
| C-30. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | OlyBond 500 | Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board | OlyBond 500 | Duro-Last / SB IV | -382.5 |
| C-31. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | OlyBond 500 | Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board | OlyBond 500 | Duro-Last or Duro-Tuff / WB II | -382.5 |
| C-32. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H | OlyBond Classic, full coverage | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | OlyBond Classic, full coverage | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -457.5 |
| C-33. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Trufast Roofing Adhesive | (Optional) Additional layers of base insulation | Trufast Roofing Adhesive | Duro-Last / SB I or WB II | -45.0 |
| C-34. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Trufast Roofing Adhesive | (Optional) Additional layers of base insulation | Trufast Roofing Adhesive | Duro-Last / WB I | -82.5 |
| C-35. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Trufast Roofing Adhesive | Min. 7/16-inch DEXcell Cement Roof Board | Trufast Roofing Adhesive | Duro-Last / SB IV | -382.5 |
| C-36. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Trufast Roofing Adhesive | Min. 7/16-inch DEXcell Cement Roof Board | Trufast Roofing Adhesive | Duro-Last or Duro-Tuff / WB II | -382.5 |
| DURO-FLEECE OR DURO-FLEECE PLUS MEMBRANE APPLICATIONS: | | | | | | | |
| C-37. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Ashland Pliodeck | (Optional) Additional layers of base insulation | Ashland Pliodeck | Duro-Fleece or Duro-Fleece Plus / WB II | -45.0 |
| C-38. | Min. 2,500 psi structural concrete | Min. 2-inch ISO 95+ GL | Ashland Pliodeck | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Ashland Pliodeck | Duro-Fleece or Duro-Fleece Plus / WB II | -217.5 |
| C-39. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | Board-Max | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Board-Max | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER), Trufast Roofing Adhesive (SPLATTER) or WB II | -247.5 |
| C-40. | Min. 2,500 psi structural concrete | Min. 0.75-inch Duro-Guard EPS Type IX | Board-Max | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Board-Max | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER), Trufast Roofing Adhesive (SPLATTER) or WB II | -255.0 |

TABLE 3A: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER
 REFER TO NOTE 17 FOR VAPOR BARRIER OPTIONS

| System No. | Deck (Note 1) | Base Insulation Layer | | Top Insulation Layer | | Roof Cover (Note 16) | MDP (psf)* |
|------------|--|---|---------------------|--|---------------------|--|------------|
| | | Type | Attach (Note 6,7&8) | Type | Attach (Note 6,7&8) | | |
| C-41. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | CR-20 | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20 | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER), Trufast Roofing Adhesive (SPLATTER) or WB II | -247.5 |
| C-42. | Min. 2,500 psi structural concrete | Min. 0.75-inch Duro-Guard EPS IX | CR-20 | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20 | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER), Trufast Roofing Adhesive (SPLATTER) or WB II | -255.0 |
| C-43. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | CR-20 | Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board | CR-20 | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER) or WB II | -300.0 |
| C-44. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Hot asphalt | (Optional) Additional layers of base insulation | Hot asphalt | Duro-Fleece or Duro-Fleece Plus / WB II | -45.0 |
| C-45. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | Hot asphalt | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Hot asphalt | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER), Trufast Roofing Adhesive (SPLATTER) or WB II | -247.5 |
| C-46. | Min. 2,500 psi structural concrete (ASTM D41 primer) | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Hot asphalt | Min. 0.25-inch DEXcell FA Glass Mat Roof Board | Hot asphalt | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER) or WB II | -495.0 |
| C-47. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | INSTA STIK Quik Set | (Optional) Additional layers of base insulation | INSTA STIK Quik Set | Duro-Fleece or Duro-Fleece Plus / WB II | -45.0 |
| C-48. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | INSTA STIK Quik Set | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | INSTA STIK Quik Set | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER), Trufast Roofing Adhesive (SPLATTER) or WB II | -247.5 |
| C-49. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | INSTA STIK Quik Set | Min. 7/16-inch DEXcell Cement Roof Board | INSTA STIK Quik Set | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER) or WB II | -382.5 |
| C-50. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | M-OSA | Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board | M-OSA | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER) or WB II | -382.5 |
| C-51. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | OlyBond 500 | (Optional) Additional layers of base insulation | OlyBond 500 | Duro-Fleece or Duro-Fleece Plus / WB II | -45.0 |

TABLE 3A: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER
 REFER TO NOTE 17 FOR VAPOR BARRIER OPTIONS

| System No. | Deck (Note 1) | Base Insulation Layer | | Top Insulation Layer | | Roof Cover (Note 16) | MDP (psf)* |
|------------|------------------------------------|--|--------------------------------|---|--------------------------------|--|------------|
| | | Type | Attach (Note 6,7&8) | Type | Attach (Note 6,7&8) | | |
| C-52. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | OlyBond 500 | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | OlyBond 500 | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER), Trufast Roofing Adhesive (SPLATTER) or WB II | -247.5 |
| C-53. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | OlyBond 500 | Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board | OlyBond 500 | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER) or WB II | -382.5 |
| C-54. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H | OlyBond Classic, full coverage | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | OlyBond Classic, full coverage | Duro-Fleece or Duro-Fleece Plus / Trufast Roofing Adhesive (SPLATTER) | -337.5 |
| C-55. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H | OlyBond Classic, full coverage | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | OlyBond Classic, full coverage | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (splatter) or WB II | -457.5 |
| C-56. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, ENRGY 3 CGF, Duro-Guard ISO III-G, H-Shield CG, Duro-Guard ISO III-H | Trufast Roofing Adhesive | Min. 0.5-inch Duro-Guard ISO HD-A or Duro-Guard ISO HD-H | Trufast Roofing Adhesive | Duro-Fleece or Duro-Fleece Plus / Trufast Roofing Adhesive, ribbons 4" o.c. | -165.0 |
| C-57. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, ENRGY 3 CGF, Duro-Guard ISO III-G, H-Shield CG, Duro-Guard ISO III-H | Trufast Roofing Adhesive | Min. 0.25-inch Dens Deck, Dens Deck Prime, DEXcell FA Glass Mat Roof Board, SECUROCK Gypsum-Fiber Roof Board or SECUROCK Glass-Mat Roof Board or min. 7/16" DEXcell Cement Roof Board | Trufast Roofing Adhesive | Duro-Fleece or Duro-Fleece Plus / Trufast Roofing Adhesive, ribbons 4" o.c. | -195.0 |
| C-58. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, ENRGY 3 CGF, Duro-Guard ISO III-G, H-Shield CG, Duro-Guard ISO III-H | Trufast Roofing Adhesive | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Trufast Roofing Adhesive | Duro-Fleece or Duro-Fleece Plus / Trufast Roofing Adhesive (SPLATTER) | -195.0 |
| C-59. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, ENRGY 3 CGF, Duro-Guard ISO III-G, H-Shield CG, Duro-Guard ISO III-H | Trufast Roofing Adhesive | (Optional) Additional layers of base insulation | Trufast Roofing Adhesive | Duro-Fleece or Duro-Fleece Plus / Trufast Roofing Adhesive, ribbons 4" o.c. | -345.0 |
| C-60. | Min. 2,500 psi structural concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Trufast Roofing Adhesive | Min. 7/16-inch DEXcell Cement Roof Board | Trufast Roofing Adhesive | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER) or WB II | -382.5 |

**TABLE 3B: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, PLATE-BONDED ROOF COVER**

| System No. | Deck (Note 1) | Insulation Layer (Note 14) | Attach | | Roof Cover / Attach | MDP (psf) |
|-----------------------------------|------------------------------------|---|--|--|--|-----------|
| | | | Fasteners | Density | | |
| RHINO BOND INDUCTION WELD: | | | | | | |
| C-61. | Min. 2,500 psi structural concrete | One or more layers, any combination | Duro-Last #14 HD with RHINO BOND Insulation Plate (PVC) | 1 per 2.7 ft ² (12 parts per 4 x 8 ft board) | Duro-Last (min. 40-mil), Duro-Tuff (min. 50-mil) or Duro-Last EV (min. 50-mil) induction welded to RHINO BOND Insulation Plate (PVC) using RHINO BOND Installation Tool | -52.5 |
| C-62. | Min. 2,500 psi structural concrete | One or more layers, any combination, preliminarily attached (Note 5) | Duro-Last #14 HD with RHINO BOND Insulation Plate (PVC) | 6-inch o.c. in rows spaced 60-inch o.c. | Duro-Last (min. 40-mil), Duro-Tuff (min. 50-mil) or Duro-Last EV (min. 50-mil) induction welded to RHINO BOND Insulation Plate (PVC) using RHINO BOND Installation Tool | -45.0 |
| C-63. | Min. 2,500 psi structural concrete | One or more layers, any combination, preliminarily attached (Note 5) | Duro-Last #14 HD with RHINO BOND Insulation Plate (PVC) | 6-inch o.c. in rows spaced 48-inch o.c. | Duro-Last (min. 40-mil), Duro-Tuff (min. 50-mil) or Duro-Last EV (min. 50-mil) induction welded to RHINO BOND Insulation Plate (PVC) using RHINO BOND Installation Tool | -52.5 |
| ISOWELD INDUCTION WELD: | | | | | | |
| C-64. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 1.5-inch | SFS Intec Dekfast DF-#14-PH3 or DF-#15-PH3 with <i>isoweld</i> ® F1-P-6.8-PVC Plates | 4 ft ² per fastener 2 x 2-ft grid, staggered | Duro-Last (min. 40 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded to SFS <i>isoweld</i> ® F1-P-6.8-PVC Plates with SFS <i>isoweld</i> ® 3000 stand-up tool | -52.5 |
| C-65. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 1.5-inch | SFS Intec Dekfast DF-#14-PH3 or DF-#15-PH3 with <i>isoweld</i> ® F1-P-6.8-PVC Plates | 3 ft ² per fastener 1.5 x 2-ft grid, staggered | Duro-Last (min. 40 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded to SFS <i>isoweld</i> ® F1-P-6.8-PVC Plates with SFS <i>isoweld</i> ® 3000 stand-up tool | -82.5 |
| C-66. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 1.5-inch, preliminarily attached (Note 5) | SFS Intec Dekfast DF-#14-PH3 or DF-#15-PH3 with <i>isoweld</i> ® F1-P-6.8-PVC Plates | 12-inch o.c. in rows spaced 60-inch o.c. | Duro-Last (min. 40 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded to SFS <i>isoweld</i> ® F1-P-6.8-PVC Plates with SFS <i>isoweld</i> ® 3000 stand-up tool | -45.0 |
| C-67. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 1.5-inch, preliminarily attached (Note 5) | SFS Intec Dekfast DF-#14-PH3 or DF-#15-PH3 with <i>isoweld</i> ® F1-P-6.8-PVC Plates | 6-inch o.c. in rows spaced 60-inch o.c. | Duro-Last (min. 40 mil) induction welded to SFS <i>isoweld</i> ® F1-P-6.8-PVC Plates with SFS <i>isoweld</i> ® 3000 stand-up tool | -90.0 |
| TRUFAST INDUCTION WELD: | | | | | | |
| C-68. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 2-inch | Trufast #14 HD or Trufast Fluted Concrete Nail with Trufast PVC IW Plate | 1 per 5.3 ft ² (6 parts per 4x8 ft board on a 24x36-inch pattern) | Duro-Last (min. 40 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -45.0* |
| C-69. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 2-inch | Trufast #14 HD or Trufast Fluted Concrete Nail with Trufast PVC IW Plate | 1 per 4.0 ft ² (8 parts per 4x8 ft board on a 24x24-inch pattern) | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -52.5 |
| C-70. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 2-inch | Trufast #14 HD or Trufast Fluted Concrete Nail with Trufast PVC IW Plate | 1 per 4.0 ft ² (8 parts per 4x8 ft board on a 24x24-inch pattern) | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -60.0 |
| C-71. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 2-inch | Trufast #14 HD or Trufast Fluted Concrete Nail with Trufast PVC IW Plate | 1 per 3.2 ft ² (10 parts per 4x8 ft board on a 24x20-inch pattern) | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -60.0 |

**TABLE 3B: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, PLATE-BONDED ROOF COVER**

| System No. | Deck (Note 1) | Insulation Layer (Note 14) | Attach | | Roof Cover / Attach | MDP (psf) |
|------------|------------------------------------|--|--|---|--|-----------|
| | | | Fasteners | Density | | |
| C-72. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 2-inch | Trufast #14 HD or Trufast Fluted Concrete Nail with Trufast PVC IW Plate | 1 per 3.2 ft ² (10 parts per 4x8 ft board on a 24x20-inch pattern) | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -67.5 |
| C-73. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 2-inch | Trufast #14 HD or Trufast Fluted Concrete Nail with Trufast PVC IW Plate | 1 per 2.7 ft ² (12 parts per 4x8 ft board per FM LPDS 1-29) | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -67.5 |
| C-74. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 2-inch | Trufast #14 HD or Trufast Fluted Concrete Nail with Trufast PVC IW Plate | 1 per 2.7 ft ² (12 parts per 4x8 ft board per FM LPDS 1-29) | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -82.5 |
| C-75. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 2-inch | Trufast #14 HD or Trufast Fluted Concrete Nail with Trufast PVC IW Plate | 1 per 2.0 ft ² (16 parts per 4x8 ft board on a 12x24-inch pattern) | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -90.0 |
| C-76. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 2-inch | Trufast #14 HD or Trufast Fluted Concrete Nail with Trufast PVC IW Plate | 1 per 2.0 ft ² (16 parts per 4x8 ft board on a 12x24-inch pattern) | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -112.5 |
| C-77. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 2-inch | Trufast #14 HD or Trufast Fluted Concrete Nail with Trufast PVC IW Plate | 1 per 1.8 ft ² (18 parts per 4x8 ft board on an 18x16-inch pattern) | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -105.0 |
| C-78. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 2-inch | Trufast #14 HD or Trufast Fluted Concrete Nail with Trufast PVC IW Plate | 1 per 1.8 ft ² (18 parts per 4x8 ft board on an 18x16-inch pattern) | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -120.0 |
| C-79. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 2-inch | Trufast #14 HD or Trufast Fluted Concrete Nail with Trufast PVC IW Plate | 1 per 1.3 ft ² (24 parts per 4x8 ft board on a 12x16-inch pattern) | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -135.0 |
| C-80. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 2-inch | Trufast #14 HD or Trufast Fluted Concrete Nail with Trufast PVC IW Plate | 1 per 1.3 ft ² (24 parts per 4x8 ft board on a 12x16-inch pattern) | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -172.5 |
| C-81. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 2-inch | Trufast #14 HD or Trufast Fluted Concrete Nail with Trufast PVC IW Plate | 1 per 1.0 ft ² (32 parts per 4x8 ft board per FM LPDS 1-29) | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -142.5 |
| C-82. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 2-inch | Trufast #14 HD or Trufast Fluted Concrete Nail with Trufast PVC IW Plate | 1 per 1.0 ft ² (32 parts per 4x8 ft board per FM LPDS 1-29) | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -217.5 |
| C-83. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 2-inch, preliminarily attached | Trufast #14 HD or Trufast Fluted Concrete Nail with Trufast PVC IW Plate | 12-inch o.c. in rows spaced 60-inch o.c. | Duro-Last (min. 40 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -45.0 |
| C-84. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 2-inch, preliminarily attached | Trufast #14 HD or Trufast Fluted Concrete Nail with Trufast PVC IW Plate | 12-inch o.c. in rows spaced 48-inch o.c. | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -52.5 |

**TABLE 3B: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, PLATE-BONDED ROOF COVER**

| System No. | Deck (Note 1) | Insulation Layer (Note 14) | Attach | | Roof Cover / Attach | MDP (psf) |
|------------|------------------------------------|--|--|--|--|-----------|
| | | | Fasteners | Density | | |
| C-85. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 2-inch, preliminarily attached | Trufast #14 HD or Trufast Fluted Concrete Nail with Trufast PVC IW Plate | 12-inch o.c. in rows spaced 48-inch o.c. | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -60.0 |
| C-86. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 2-inch | Trufast #14 HD or Trufast Fluted Concrete Nail with Trufast PVC IW Plate | 12-inch o.c. in rows spaced 36-inch o.c. | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -60.0 |
| C-87. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 2-inch | Trufast #14 HD or Trufast Fluted Concrete Nail with Trufast PVC IW Plate | 12-inch o.c. in rows spaced 36-inch o.c. | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -82.5 |
| C-88. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 2-inch, preliminarily attached | Trufast #14 HD or Trufast Fluted Concrete Nail with Trufast PVC IW Plate | 6-inch o.c. in rows spaced 72-inch o.c. | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -67.5 |
| C-89. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 2-inch, preliminarily attached | Trufast #14 HD or Trufast Fluted Concrete Nail with Trufast PVC IW Plate | 6-inch o.c. in rows spaced 72-inch o.c. | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -75.0 |
| C-90. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 2-inch, preliminarily attached | Trufast #14 HD or Trufast Fluted Concrete Nail with Trufast PVC IW Plate | 6-inch o.c. in rows spaced 60-inch o.c. | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -75.0 |
| C-91. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 2-inch, preliminarily attached | Trufast #14 HD or Trufast Fluted Concrete Nail with Trufast PVC IW Plate | 6-inch o.c. in rows spaced 60-inch o.c. | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -90.0 |
| C-92. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 2-inch, preliminarily attached | Trufast #14 HD or Trufast Fluted Concrete Nail with Trufast PVC IW Plate | 6-inch o.c. in rows spaced 48-inch o.c. | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -90.0 |
| C-93. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 2-inch, preliminarily attached | Trufast #14 HD or Trufast Fluted Concrete Nail with Trufast PVC IW Plate | 6-inch o.c. in rows spaced 48-inch o.c. | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -112.5 |
| C-94. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 2-inch | Trufast #14 HD or Trufast Fluted Concrete Nail with Trufast PVC IW Plate | 6-inch o.c. in rows spaced 36-inch o.c. | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -112.5 |
| C-95. | Min. 2,500 psi structural concrete | One or more layers, any combination, min. 2-inch | Trufast #14 HD or Trufast Fluted Concrete Nail with Trufast PVC IW Plate | 6-inch o.c. in rows spaced 36-inch o.c. | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -150.0 |

**TABLE 3C: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE D-1: PRELIMINARILY ATTACHED INSULATION, MECHANICALLY ATTACHED ROOF COVER**

| System No. | Deck (Note 1) | Insulation (Note 14) | | Roof Cover | | | MDP (psf) |
|-------------------------------|------------------------------------|--|------------------|---------------------------|---|--|-----------|
| | | Type | Attach (Note 5) | Membrane | Fasteners | Attach | |
| STANDARD LAP SYSTEMS: | | | | | | | |
| C-96. | Min. 3,000 psi structural concrete | One or more layers, any combination, min. 1-inch | Prelim. attach | Duro-Last EV, min. 50-mil | Duro-Last Concrete Screw with Duro-Last Poly-Plate | <u>Standard Lap System</u> fastened 12-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Laps sealed with 1.5-inch heat weld. | -45.0 |
| C-97. | Min. 2,500 psi structural concrete | (Optional) One or more layers, any combination | Prelim. attached | Duro-Last, min. 40 mil | Duro-Last Concrete Screws #14 or Duro-Last Concrete Nails with Duro-Last 2.4-inch Barbed Metal Plates | <u>Standard Lap System</u> fastened 6-inch o.c. within 3-inch wide tabs spaced 84-inch o.c. | -60.0 |
| C-98. | Min. 3,000 psi structural concrete | One or more layers, any combination, min. 1-inch | Prelim. attach | Duro-Last EV, min. 50-mil | Duro-Last Concrete Screw with Duro-Last Cleat Plate | <u>Standard Lap System</u> fastened 6-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Laps sealed with 1.5-inch heat weld. | -75.0 |
| DURO-ROOF LAP SYSTEMS: | | | | | | | |
| C-99. | Min. 2,500 psi structural concrete | (Optional) One or more layers, any combination | Prelim. attached | Duro-Last, min. 40 mil | Duro-Last Concrete Screws #14 or Duro-Last Concrete Nails with Duro-Last 3-inch Metal Plates | <u>Duro-Roof Lap System</u> fastened 12-inch o.c. within 6-inch wide tabs spaced 57-inch o.c. Tab Sealer 4725 at max. 60 ft ² /gal. | -52.5 |
| C-100. | Min. 2,500 psi structural concrete | (Optional) One or more layers, any combination | Prelim. attached | Duro-Last, min. 40 mil | Duro-Last Concrete Screws #14 or Duro-Last Concrete Nails with Duro-Last Batten Bar | <u>Duro-Roof Lap System</u> fastened 6-inch o.c. within 3-inch wide tabs spaced 60-inch o.c. Tab Sealer 4725 at max. 60 ft ² /gal. | -67.5 |
| C-101. | Min. 2,500 psi structural concrete | (Optional) One or more layers, any combination | Prelim. attached | Duro-Last, min. 40 mil, | Duro-Last Concrete Screws #14 or Duro-Last Concrete Nails with Duro-Last 3-inch Metal Plates | <u>Duro-Roof Lap System</u> fastened 6-inch o.c. within 6-inch wide tabs spaced 120-inch o.c. Tab Sealer 4725 at max. 60 ft ² /gal. | -82.5 |
| C-102. | Min. 2,500 psi structural concrete | (Optional) One or more layers, any combination | Prelim. attached | Duro-Last, min. 40 mil | Duro-Last Concrete Screws #14 or Duro-Last Concrete Nails with OMG 2-3/8" Eyehook Plates | <u>Duro-Roof Lap System</u> fastened 6-inch o.c. within 6-inch wide tabs spaced 25-inch o.c. Tab Sealer 4725 at max. 60 ft ² /gal. | -142.5 |

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

| System No. | Deck (Note 1) | Primer | Vapor Barrier | Roof Cover (Note 16) | MDP (psf)* |
|------------|---------------------|----------|---|--|------------|
| C-103. | Structural concrete | None | Duro-Last Vapor Barrier, self-adhering | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (splatter applied) | -502.5 |
| C-104. | Structural concrete | ASTM D41 | Duro-Last Torch Down Vapor Barrier, torch-applied | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (splatter applied) | -502.5 |
| C-105. | Structural concrete | None | None | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece WB II Adhesive | -673.0 |
| C-106. | Structural concrete | None | None | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (splatter applied) | -1,025.0 |

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

| System No. | Deck (Note 1) | LWIC (Note 15) | Base Insulation Layer | | Coverboard | | Roof Cover | MDP (psf)* |
|--|--|--|--|---------------------|---|---------------------|---|------------|
| | | | Type | Attach (Note 6,7&8) | Type | Attach (Note 6,7&8) | | |
| PRE-EXISTENT CELLULAR LWIC: | | | | | | | | |
| BAREBACK MEMBRANE APPLICATIONS: | | | | | | | | |
| LWC-1. | Min. 22 ga., type BV steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | Min. 200 psi, min. 2-inch thick cellular lightweight insulating concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Ashland Pliodeck | (Optional) Additional layers of base insulation | Ashland Pliodeck | Duro-Last / SB I or WB II | -45.0 |
| LWC-2. | Min. 22 ga., type BV steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | Min. 200 psi, min. 2-inch thick cellular lightweight insulating concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Ashland Pliodeck | (Optional) Additional layers of base insulation | Ashland Pliodeck | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -45.0 |
| LWC-3. | Min. 22 ga., type BV steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | Min. 200 psi, min. 2-inch thick cellular lightweight insulating concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | CR-20 | (Optional) Additional layers of base insulation | CR-20 | Duro-Last / SB I or WB II | -45.0 |
| LWC-4. | Min. 22 ga., type BV steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | Min. 200 psi, min. 2-inch thick cellular lightweight insulating concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | CR-20 | (Optional) Additional layers of base insulation | CR-20 | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -45.0 |
| DURO-FLEECE AND DURO-FLEECE PLUS MEMBRANE APPLICATIONS: | | | | | | | | |
| LWC-5. | Min. 22 ga., type BV steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | Min. 200 psi, min. 2-inch thick cellular lightweight insulating concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Ashland Pliodeck | (Optional) Additional layers of base insulation | Ashland Pliodeck | Duro-Fleece or Duro-Fleece Plus / WB II | -45.0 |
| LWC-6. | Min. 22 ga., type BV steel; 6 ft span, #12 HWH Tek 5 screws, 6" o.c. | Min. 200 psi, min. 2-inch thick cellular lightweight insulating concrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | CR-20 | (Optional) Additional layers of base insulation | CR-20 | Duro-Fleece or Duro-Fleece Plus / WB II | -45.0 |

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

| System No. | Deck (Note 1) | LWIC (Note 15) | Base Insulation Layer | | Coverboard | | Roof Cover | MDP (psf)* |
|--|---------------------|--|--|---------------------|---|---------------------|--|------------|
| | | | Type | Attach (Note 6,7&8) | Type | Attach (Note 6,7&8) | | |
| PRE-EXISTENT CELLULAR LWIC: | | | | | | | | |
| BAREBACK MEMBRANE APPLICATIONS: | | | | | | | | |
| LWC-7. | Structural concrete | Min. 200 psi, min. 2-inch thick cellular lightweight insulating concrete | Min. 1.5-inch AC Foam II, Duro-Guard ISO II-A | Ashland Pliodeck | (Optional) Additional layers of base insulation | Ashland Pliodeck | Duro-Last / SB I or WB II | -45.0 |
| LWC-8. | Structural concrete | Min. 200 psi, min. 2-inch thick cellular lightweight insulating concrete | Min. 1.5-inch AC Foam II, Duro-Guard ISO II-A | Ashland Pliodeck | (Optional) Additional layers of base insulation | Ashland Pliodeck | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -45.0 |
| LWC-9. | Structural concrete | Min. 200 psi, min. 2-inch thick cellular lightweight insulating concrete | Min. 1.5-inch AC Foam II, Duro-Guard ISO II-A | CR-20 | (Optional) Additional layers of base insulation | CR-20 | Duro-Last / SB I or WB II | -45.0 |
| LWC-10. | Structural concrete | Min. 200 psi, min. 2-inch thick cellular lightweight insulating concrete | Min. 1.5-inch AC Foam II, Duro-Guard ISO II-A | CR-20 | (Optional) Additional layers of base insulation | CR-20 | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -45.0 |
| DURO-FLEECE AND DURO-FLEECE PLUS MEMBRANE APPLICATIONS: | | | | | | | | |
| LWC-11. | Structural concrete | Min. 200 psi, min. 2-inch thick cellular lightweight insulating concrete | Min. 1.5-inch AC Foam II, Duro-Guard ISO II-A | Ashland Pliodeck | (Optional) Additional layers of base insulation | Ashland Pliodeck | Duro-Fleece or Duro-Fleece Plus / WB II | -45.0 |
| LWC-12. | Structural concrete | Min. 200 psi, min. 2-inch thick cellular lightweight insulating concrete | Min. 1.5-inch AC Foam II, Duro-Guard ISO II-A | CR-20 | (Optional) Additional layers of base insulation | CR-20 | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER), Trufast Roofing Adhesive (SPLATTER) or WB II | -45.0 |
| CELCORE (NOA 18-0717.05): | | | | | | | | |
| BAREBACK MEMBRANE APPLICATIONS: | | | | | | | | |
| LWC-13. | Structural concrete | Min. 200 psi, min. 2-inch thick Celcore Cellular Concrete | Min. 1.5-inch AC Foam II, Duro-Guard ISO II-A | CR-20 | (Optional) Additional layers of base insulation | CR-20 | Duro-Last / WB I | -82.5 |
| LWC-14. | Structural concrete | Min. 200 psi, min. 2-inch thick Celcore Cellular Concrete | Min. 1.5-inch AC Foam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | CR-20 | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20 | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -222.5 |
| DURO-FLEECE AND DURO-FLEECE PLUS MEMBRANE APPLICATIONS: | | | | | | | | |
| LWC-15. | Structural concrete | Min. 200 psi, min. 2-inch thick Celcore Cellular Concrete | Min. 1.5-inch AC Foam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | CR-20 | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20 | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (splatter) or WB II | -222.5 |
| ELASTIZELL (NOA 18-0208.03): | | | | | | | | |
| BAREBACK MEMBRANE APPLICATIONS: | | | | | | | | |

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

| System No. | Deck (Note 1) | LWIC (Note 15) | Base Insulation Layer | | Coverboard | | Roof Cover | MDP (psf)* |
|--|---------------------|---|---|-------------------------------|---|-------------------------------|--|------------|
| | | | Type | Attach (Note 6,7&8) | Type | Attach (Note 6,7&8) | | |
| LWC-16. | Structural concrete | Min. 200 psi, min. 2-inch thick Elastizell. | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Ashland Pliodeck | (Optional) Additional layers of base insulation | Ashland Pliodeck | Duro-Last / WB I | -82.5 |
| LWC-17. | Structural concrete | Min. 200 psi, min. 2-inch thick Elastizell. | Min. 2-inch ISO 95+ GL | Ashland Pliodeck | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Ashland Pliodeck | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -105.0 |
| LWC-18. | Structural concrete | Min. 200 psi, min. 2-inch thick Elastizell. | Min. 2-inch ISO 95+ GL | Ashland Pliodeck, 6-inch o.c. | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Ashland Pliodeck, 6-inch o.c. | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -187.5 |
| LWC-19. | Structural concrete | Min. 200 psi, min. 2-inch thick Elastizell | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | CR-20 | (Optional) Additional layers of base insulation | CR-20 | Duro-Last / WB I | -82.5 |
| LWC-20. | Structural concrete | Min. 200 psi, min. 2-inch thick Elastizell | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | CR-20 | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20 | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -180.0 |
| DURO-FLEECE AND DURO-FLEECE PLUS MEMBRANE APPLICATIONS: | | | | | | | | |
| LWC-21. | Structural concrete | Min. 200 psi, min. 2-inch thick Elastizell. | Min. 2-inch ISO 95+ GL | Ashland Pliodeck | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Ashland Pliodeck | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER), Trufast Roofing Adhesive (SPLATTER) or WB II | -105.0 |
| LWC-22. | Structural concrete | Min. 200 psi, min. 2-inch thick Elastizell. | Min. 2-inch ISO 95+ GL | Ashland Pliodeck, 6-inch o.c. | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Ashland Pliodeck, 6-inch o.c. | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER), Trufast Roofing Adhesive (SPLATTER) or WB II | -187.5 |
| LWC-23. | Structural concrete | Min. 200 psi, min. 2-inch thick Elastizell | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | CR-20 | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20 | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER), Trufast Roofing Adhesive (SPLATTER) or WB II | -180.0 |
| MEARLCRETE (NOA 18-0829.06): | | | | | | | | |
| BAREBACK MEMBRANE APPLICATIONS: | | | | | | | | |
| LWC-24. | Structural concrete | Min. 200 psi, min. 2-inch thick Mearlcrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | CR-20 | (Optional) Additional layers of base insulation | CR-20 | Duro-Last / WB I | -82.5 |
| LWC-25. | Structural concrete | Min. 200 psi, min. 2-inch thick Mearlcrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | CR-20 | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20 | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -240.0 |

TABLE 4B: LIGHTWEIGHT CONCRETE OVER STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A: BONDED INSULATION, BONDED ROOF COVER

| System No. | Deck (Note 1) | LWIC (Note 15) | Base Insulation Layer | | Coverboard | | Roof Cover | MDP (psf)* |
|--|---------------------|--|---|---------------------|---|---------------------|--|------------|
| | | | Type | Attach (Note 6,7&8) | Type | Attach (Note 6,7&8) | | |
| DURO-FLEECE AND DURO-FLEECE PLUS MEMBRANE APPLICATIONS: | | | | | | | | |
| LWC-26. | Structural concrete | Min. 200 psi, min. 2-inch thick Mearlcrete | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | CR-20 | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20 | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER), Trufast Roofing Adhesive (SPLATTER) or WB II | -240.0 |

TABLE 4C: LIGHTWEIGHT CONCRETE OVER STEEL DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE E-2: MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER

| System No. | Deck (Note 1) | LWIC (Note 15) | Base Sheet | | | Roof Cover (Note 16) | MDP (psf) |
|-------------------------------------|--|--|---|--------------------------------------|---|--|-----------|
| | | | Type | Fasteners | Attach | | |
| ELASTIZELL (NOA 18-0208.03): | | | | | | | |
| LWC-27. | Min. 22 ga., type BV, Grade 33 steel; 7 ft span; #12 HWH Tek 5 screws, 6" o.c. | Min. 350 psi, min. 2-inch thick Elastizell cellular lightweight concrete cast with Zell Fibers in the mix. | CertainTeed Flexiglas Base Sheet, GAFGLAS #75, GAFGLAS Stratavent Nailable Base Sheet, JM PermaPly 28 | Trufast Twin-Loc Nails (min. 1.8-in) | 7.5-inch o.c. at the 3-inch laps and 7.5-inch o.c. in two, equally spaced, staggered row in the center of the sheet | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (splatter applied) | -67.5 |

TABLE 4D: LIGHTWEIGHT CONCRETE OVER STEEL DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER

| System No. | Deck (Note 1) | LWIC (Note 15) | Roof Cover (Note 16) | MDP (psf)* |
|-------------------------------------|---|--|--|------------|
| CELCORE (NOA 18-0717.05): | | | | |
| LWC-28. | Min. 22 ga., type BV, Grade 33 steel deck; 4 ft span; #12 HWH Tek 5 screws, 6" o.c. | Min. 350 psi, min. 2-inch thick Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture, with optional 1-inch thick, 1.0 pcf EPS holey board and surfacing of Celcore PVA Curing Compound. | Duro-Fleece or Duro-Fleece Plus / WB II | -60.0 |
| ELASTIZELL (NOA 18-0208.03): | | | | |
| LWC-29. | Min. 22 ga., type BV, Grade 33 steel; 7 ft span; #12 HWH Tek 5 screws, 6" o.c. | Min. 350 psi, min. 2-inch thick Elastizell cellular lightweight concrete cast with Zell Fibers in the mix. | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (splatter applied) | -52.5 |

**TABLE 4E: LIGHTWEIGHT CONCRETE OVER STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER**

| System No. | Deck (Note 1) | LWIC (Note 15) | Roof Cover (Note 16) | MDP (psf)* |
|-------------------------------------|------------------------------------|---|--|------------|
| PRE-EXISTENT CELLULAR LWIC: | | | | |
| LWC-30. | Min. 2,500 psi structural concrete | Min. 440 psi, min. 2-inch thick pre-existent cellular lightweight concrete. No EPS holey board. <i>To qualify the LWIC under this assembly, an OMG CR Assembled Base Sheet Fastener (1.7") shall achieve an average withdrawal of 128 lbf when tested per TAS 105.</i> | Duro-Last, Duro-Last EV or Duro-Tuff / SB-IV | -407.5 |
| LWC-31. | Min. 2,500 psi structural concrete | Min. 440 psi, min. 2-inch thick pre-existent cellular lightweight concrete. No EPS holey board. <i>To qualify the LWIC under this assembly, an OMG CR Assembled Base Sheet Fastener (1.7") shall achieve an average withdrawal of 128 lbf when tested per TAS 105.</i> | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 Membrane Adhesive at 5 lbs/square. | -477.5 |
| LWC-32. | Min. 2,500 psi structural concrete | Min. 440 psi, min. 2-inch thick pre-existent cellular lightweight concrete. No EPS holey board. <i>To qualify the LWIC under this assembly, an OMG CR Assembled Base Sheet Fastener (1.7") shall achieve an average withdrawal of 128 lbf when tested per TAS 105.</i> | Duro-Last, Duro-Last EV or Duro-Tuff / WB II | -502.5 |
| CELCORE (NOA 18-0717.05): | | | | |
| LWC-33. | Min. 2,500 psi structural concrete | Min. 350 psi, min. 2-inch thick Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture, with optional 1-inch thick, 1.0 pcf EPS holey board and surfacing of Celcore PVA Curing Compound. | Duro-Fleece or Duro-Fleece Plus / WB II | -82.5 |
| LWC-34. | Min. 2,500 psi structural concrete | Min. 350 psi, min. 2-inch thick Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture, with optional 1-inch thick, 1.0 pcf EPS holey board and surfacing of Celcore PVA Curing Compound. | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece Adhesive <u>at 4-inch o.c.</u> | -232.5 |
| CONCRECEL (NOA 18-0207.03): | | | | |
| LWC-35. | Min. 2,500 psi structural concrete | Min. 440 psi, min. 2-inch thick Concrecel Lightweight Insulating Concrete. No EPS holey board. | Duro-Last, Duro-Last EV or Duro-Tuff / WB II | -372.5 |
| LWC-36. | Min. 2,500 psi structural concrete | Min. 440 psi, min. 2-inch thick Concrecel Lightweight Insulating Concrete. No EPS holey board. | Duro-Last, Duro-Last EV or Duro-Tuff / SB-IV | -490.0 |
| LWC-37. | Min. 2,500 psi structural concrete | Min. 440 psi, min. 2-inch thick Concrecel Lightweight Insulating Concrete. No EPS holey board. | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 Membrane Adhesive at 5 lbs/square. | -492.5 |
| LWC-38. | Min. 2,500 psi structural concrete | Min. 440 psi, min. 2-inch thick Concrecel Lightweight Insulating Concrete. No EPS holey board. | Duro-Fleece or Duro-Fleece Plus / WB II | -502.5 |
| ELASTIZELL (NOA 18-0208.03): | | | | |
| LWC-39. | Min. 2,500 psi structural concrete | Min. 310 psi, min. 2-inch thick Elastizell Lightweight Insulating Concrete. No EPS holey board. | Duro-Last, Duro-Last EV or Duro-Tuff / WB II | -412.5 |
| LWC-40. | Min. 2,500 psi structural concrete | Min. 310 psi, min. 2-inch thick Elastizell Lightweight Insulating Concrete. No EPS holey board. | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 Membrane Adhesive at 5 lbs/square. | -462.5 |
| LWC-41. | Min. 2,500 psi structural concrete | Min. 310 psi, min. 2-inch thick Elastizell Lightweight Insulating Concrete. No EPS holey board. | Duro-Last, Duro-Last EV or Duro-Tuff / SB-IV | -492.5 |
| LWC-42. | Min. 2,500 psi structural concrete | Min. 310 psi, min. 2-inch thick Elastizell Lightweight Insulating Concrete. No EPS holey board. | Duro-Fleece or Duro-Fleece Plus / WB II | -502.5 |

**TABLE 5A: CEMENTITIOUS WOOD FIBER DECKS - REROOF (TEAR-OFF)
SYSTEM TYPE A: BONDED INSULATION, BONDED ROOF COVER**

| System No. | Deck (Notes 1 & 12) | Base Insulation Layer | | Top Insulation Layer | | Roof Cover (Note 16) | MDP (psf)* |
|------------|--|---|----------------------------------|----------------------|---------------------|--|------------|
| | | Type | Attach | Type | Attach (Note 6,7&8) | | |
| CWF-1. | Existing min. 2.5-inch Tectum Plank or Tectum LS Plank | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | INSTA STIK Quik Set, 6-inch o.c. | None | N/A | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -150.0 |
| CWF-2. | Existing min. 2.5-inch Tectum Plank or Tectum LS Plank | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | INSTA STIK Quik Set, 6-inch o.c. | None | N/A | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER), Trufast Roofing Adhesive (SPLATTER) or WB II | -150.0 |

**TABLE 5B: CEMENTITIOUS WOOD FIBER DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE D-1: PRELIMINARILY ATTACHED INSULATION, MECHANICALLY ATTACHED ROOF COVER**

| System No. | Deck (Note 1) | Insulation (Note 14) | | Roof Cover | | | MDP (psf) |
|------------|--|--|-----------------|------------------------|--|--|-----------|
| | | Type | Attach (Note 5) | Membrane | Fasteners | Attach | |
| CWF-3. | Min. 3-inch Tectum I; 32-inch span; ¼-14 x 5" self-tapping pancake head screws with 2" diameter metal plates, 3.5" from each edge and 8" o.c. between edge screws; BASF DegaBond 948 adhesive at the 'tongue' of each pan to seal unsupported edges. | One or more layers, any combination, min. 1.5-inch | Prelim. attach | Duro-Last, min. 40-mil | Duro-Last Auger Fastener (min. 2-inch embedment) with 2" Auger Plate | <u>Standard Lap System</u> fastened 6-inch o.c. within 6-inch wide tabs spaced 57-inch o.c. | -45.0 |
| CWF-4. | Min. 3-inch Tectum I; 32-inch span; ¼-14 x 5" self-tapping pancake head screws with 2" diameter metal plates, 3.5" from each edge and 8" o.c. between edge screws; BASF DegaBond 948 adhesive at the 'tongue' of each pan to seal unsupported edges. | One or more layers, any combination, min. 1.5-inch | Prelim. attach | Duro-Last, min. 40-mil | Duro-Last Auger Fastener (min. 2-inch embedment) with 2" Auger Plate | <u>Duro-Roof Lap System</u> fastened 6-inch o.c. within 6-inch wide tabs spaced 57-inch o.c. Tab Sealer 4725 at max. 60 ft ² /gal | -52.5 |

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

| System No. | Deck (Notes 1 & 12) | Base Insulation Layer | | Top Insulation Layer | | Roof Cover (Note 16) | MDP (psf)* |
|---|--|--|--------------------------|---|--------------------------|---|------------|
| | | Type | Attach (Note 6,7&8) | Type | Attach (Note 6,7&8) | | |
| BAREBACK MEMBRANE APPLICATIONS: | | | | | | | |
| G-1. | Existing poured gypsum or gypsum plank | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | CR-20 | (Optional) Additional layers of base insulation | CR-20 | Duro-Last / SB I or WB II | -45.0 |
| G-2. | Existing poured gypsum or gypsum plank | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | CR-20 | (Optional) Additional layers of base insulation | CR-20 | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -45.0 |
| G-3. | Existing poured gypsum or gypsum plank | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | CR-20 | (Optional) Additional layers of base insulation | CR-20 | Duro-Last / WB I | -82.5 |
| G-4. | Existing poured gypsum or gypsum plank | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | CR-20 | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20 | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -247.5 |
| DURO-FLEECE OR DURO-FLEECE PLUS MEMBRANE APPLICATIONS: | | | | | | | |
| G-5. | Existing poured gypsum or gypsum plank | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | CR-20 | (Optional) Additional layers of base insulation | CR-20 | Duro-Fleece or Duro-Fleece Plus / WB II | -45.0 |
| G-6. | Existing poured gypsum or gypsum plank | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | CR-20 | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20 | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (splatter) or WB II | -247.5 |
| G-7. | Existing poured gypsum or gypsum plank | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, ENRGY 3 CGF, Duro-Guard ISO III-G, H-Shield CG, Duro-Guard ISO III-H | Trufast Roofing Adhesive | Min. 0.5-inch Duro-Guard ISO HD-A or Duro-Guard ISO HD-H | Trufast Roofing Adhesive | Duro-Fleece or Duro-Fleece Plus / Trufast Roofing Adhesive, ribbons 4" o.c. | -165.0 |
| G-8. | Existing poured gypsum or gypsum plank | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, ENRGY 3 CGF, Duro-Guard ISO III-G, H-Shield CG, Duro-Guard ISO III-H | Trufast Roofing Adhesive | Min. 0.25-inch Dens Deck, Dens Deck Prime, DEXcell FA Glass Mat Roof Board, SECUROCK Gypsum-Fiber Roof Board or SECUROCK Glass-Mat Roof Board or min. 7/16" DEXcell Cement Roof Board | Trufast Roofing Adhesive | Duro-Fleece or Duro-Fleece Plus / Trufast Roofing Adhesive, ribbons 4" o.c. | -195.0 |
| G-9. | Existing poured gypsum or gypsum plank | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, ENRGY 3 CGF, Duro-Guard ISO III-G, H-Shield CG, Duro-Guard ISO III-H | Trufast Roofing Adhesive | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Trufast Roofing Adhesive | Duro-Fleece or Duro-Fleece Plus / Trufast Roofing Adhesive (SPLATTER) | -195.0 |
| G-10. | Existing poured gypsum or gypsum plank | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, ENRGY 3 CGF, Duro-Guard ISO III-G, H-Shield CG, Duro-Guard ISO III-H | Trufast Roofing Adhesive | (Optional) Additional layers of base insulation | Trufast Roofing Adhesive | Duro-Fleece or Duro-Fleece Plus / Trufast Roofing Adhesive, ribbons 4" o.c. | -217.5 |

TABLE 6B: GYPSUM DECKS - REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE D-1: PRELIMINARILY ATTACHED INSULATION, MECHANICALLY ATTACHED ROOF COVER

| System No. | Deck (Note 1) | Insulation | | Roof Cover | | | MDP (psf) |
|------------|--|-------------------------------------|------------------|-------------------------|--|--|-----------|
| | | Type | Attach | Membrane | Fasteners (Note 11) | Attach | |
| G-11. | Existing poured gypsum or gypsum plank | One or more layers, any combination | Prelim. Attached | Duro-Last, min. 40 mil, | Duro-Last Auger Fastener with 2" Auger Plate | Standard Lap System fastened 6-inch o.c. within 6-inch wide tabs spaced 57-inch o.c. | -45.0 |
| G-12. | Existing poured gypsum or gypsum plank | One or more layers, any combination | Prelim. attached | Duro-Last, min. 40 mil, | Duro-Last Auger Fastener with 2" Auger Plate | Duro-Roof Lap System fastened 6-inch o.c. within 6-inch wide tabs spaced 57-inch o.c. Tab Sealer 4725 at max. 60 ft2/gal | -60.0 |

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

| System No. | Substrate (Notes 1 & 12) | Base Insulation Layer | | Top Insulation Layer | | Roof Cover (Note 16) | MDP (psf)* |
|--|---|---|-------------------------------|---|-------------------------------|---|------------|
| | | Type | Attach (Note 6,7&8) | Type | Attach (Note 6,7&8) | | |
| BAREBACK MEMBRANE APPLICATIONS: | | | | | | | |
| R-1. | Existing asphaltic BUR or mineral surface cap sheet | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Ashland Pliodeck, 6-inch o.c. | (Optional) Additional layers of base insulation | Ashland Pliodeck, 6-inch o.c. | Duro-Last / SB I or WB II | -45.0 |
| R-2. | Existing asphaltic BUR or mineral surface cap sheet | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Ashland Pliodeck, 6-inch o.c. | (Optional) Additional layers of base insulation | Ashland Pliodeck, 6-inch o.c. | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -45.0 |
| R-3. | Existing asphaltic BUR or mineral surface cap sheet | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Ashland Pliodeck, 6-inch o.c. | (Optional) Additional layers of base insulation | Ashland Pliodeck, 6-inch o.c. | Duro-Last / WB I | -82.5 |
| R-4. | Existing asphaltic BUR or mineral surface cap sheet | Min. 2-inch ISO 95+ GL | Ashland Pliodeck, 6-inch o.c. | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Ashland Pliodeck, 6-inch o.c. | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -172.5 |
| R-5. | Existing asphaltic BUR or mineral surface cap sheet | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Board-Max | (Optional) Additional layers of base insulation | Board-Max | Duro-Last / SB I or WB II | -45.0 |
| R-6. | Existing asphaltic BUR or mineral surface cap sheet | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Board-Max | (Optional) Additional layers of base insulation | Board-Max | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -45.0 |
| R-7. | Existing asphaltic BUR or mineral surface cap sheet | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Board-Max | (Optional) Additional layers of base insulation | Board-Max | Duro-Last / WB I | -82.5 |
| R-8. | Existing smooth surface BUR or granule surface modified bitumen | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Board-Max | None | N/A | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -245.0 |
| R-9. | Existing smooth surface BUR or granule surface modified bitumen | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | Board-Max | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Board-Max | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -247.5 |
| R-10. | Existing smooth-surface asphalt BUR or granule-surface modified bitumen | Min. 0.75-inch Duro-Guard EPS Type IX | Board-Max | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Board-Max | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -255.0 |
| R-11. | Existing asphaltic BUR or mineral surface cap sheet | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | CR-20 | (Optional) Additional layers of base insulation | CR-20 | Duro-Last / SB I or WB II | -45.0 |

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

| System No. | Substrate (Notes 1 & 12) | Base Insulation Layer | | Top Insulation Layer | | Roof Cover (Note 16) | MDP (psf)* |
|------------|---|--|---------------------|---|---------------------|---|------------|
| | | Type | Attach (Note 6,7&8) | Type | Attach (Note 6,7&8) | | |
| R-12. | Existing asphaltic BUR or mineral surface cap sheet | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | CR-20 | (Optional) Additional layers of base insulation | CR-20 | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -45.0 |
| R-13. | Existing asphaltic BUR or mineral surface cap sheet | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | CR-20 | (Optional) Additional layers of base insulation | CR-20 | Duro-Last / WB I | -82.5 |
| R-14. | Existing smooth surface modified bitumen | (Optional) Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | CR-20 | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20 | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -222.5 |
| R-15. | Existing smooth-surface SBS modified bitumen | Min. 0.75-inch Duro-Guard EPS IX | CR-20 | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20 | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -222.5 |
| R-16. | Existing smooth surface BUR or granule surface modified bitumen | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20 | None | N/A | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -245.0 |
| R-17. | Existing smooth surface BUR or granule surface modified bitumen | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | CR-20 | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20 | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -247.5 |
| R-18. | Existing smooth-surface asphalt BUR or granule-surface modified bitumen | Min. 0.75-inch Duro-Guard EPS IX | CR-20 | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20 | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -255.0 |
| R-19. | Existing asphaltic BUR or mineral surface cap sheet | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Hot asphalt | (Optional) Additional layers of base insulation | Hot asphalt | Duro-Last / SB I or WB II | -45.0 |
| R-20. | Existing asphaltic BUR or mineral surface cap sheet | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Hot asphalt | (Optional) Additional layers of base insulation | Hot asphalt | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -45.0 |
| R-21. | Existing asphaltic BUR or mineral surface cap sheet | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Hot asphalt | (Optional) Additional layers of base insulation | Hot asphalt | Duro-Last / WB I | -75.0 |
| R-22. | Existing asphaltic BUR or mineral surface cap sheet | (Optional) Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | INSTA STIK Quik Set | Min. 0.25-inch Dens Deck | INSTA STIK Quik Set | Duro-Last / WB I | -37.5 |
| R-23. | Existing asphaltic BUR or mineral surface cap sheet | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | INSTA STIK Quik Set | (Optional) Additional layers of base insulation | INSTA STIK Quik Set | Duro-Last / SB I or WB II | -45.0 |
| R-24. | Existing asphaltic BUR or mineral surface cap sheet | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | INSTA STIK Quik Set | (Optional) Additional layers of base insulation | INSTA STIK Quik Set | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -45.0 |
| R-25. | Existing asphaltic BUR or mineral surface cap sheet | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | INSTA STIK Quik Set | (Optional) Additional layers of base insulation | INSTA STIK Quik Set | Duro-Last / WB I | -82.5 |
| R-26. | Existing asphaltic BUR or mineral surface cap sheet | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | INSTA STIK Quik Set | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | INSTA STIK Quik Set | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -127.5 |
| R-27. | Existing asphalt built-up roof | (Optional) Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | OlyBond 500 | (Optional) Additional layers of base insulation | OlyBond 500 | Duro-Last / SB I or WB II | -45.0 |

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

| System No. | Substrate (Notes 1 & 12) | Base Insulation Layer | | Top Insulation Layer | | Roof Cover (Note 16) | MDP (psf)* |
|---|---|--|-------------------------------|---|-------------------------------|--|------------|
| | | Type | Attach (Note 6,7&8) | Type | Attach (Note 6,7&8) | | |
| R-28. | Existing asphalt built-up roof | (Optional) Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | OlyBond 500 | (Optional) Additional layers of base insulation | OlyBond 500 | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -45.0 |
| R-29. | Existing asphalt built-up roof | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | OlyBond 500 | (Optional) Additional layers of base insulation | OlyBond 500 | Duro-Last / WB I | -82.5 |
| R-30. | Existing asphalt built-up roof | (Optional) Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | OlyBond 500 | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | OlyBond 500 | Duro-Last, Duro-Last EV or Duro-Tuff / SB IV or WB II | -120.0 |
| DURO-FLEECE OR DURO-FLEECE PLUS MEMBRANE APPLICATIONS: | | | | | | | |
| R-31. | Existing asphaltic BUR or mineral surface cap sheet | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Ashland Pliodeck, 6-inch o.c. | (Optional) Additional layers of base insulation | Ashland Pliodeck, 6-inch o.c. | Duro-Fleece or Duro-Fleece Plus / WB II | -45.0 |
| R-32. | Existing asphaltic BUR or mineral surface cap sheet | Min. 2-inch ISO 95+ GL | Ashland Pliodeck, 6-inch o.c. | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Ashland Pliodeck, 6-inch o.c. | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER), Trufast Roofing Adhesive (SPLATTER) or WB II | -172.5 |
| R-33. | Existing asphaltic BUR or mineral surface cap sheet | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Board-Max | (Optional) Additional layers of base insulation | Board-Max | Duro-Fleece or Duro-Fleece Plus / WB II | -45.0 |
| R-34. | Existing smooth surface BUR or granule surface modified bitumen | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Board-Max | None | N/A | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER), Trufast Roofing Adhesive (SPLATTER) or WB II | -245.0 |
| R-35. | Existing smooth surface BUR or granule surface modified bitumen | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | Board-Max | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Board-Max | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER), Trufast Roofing Adhesive (SPLATTER) or WB II | -247.5 |
| R-36. | Existing smooth-surface asphalt BUR or granule-surface modified bitumen | Min. 0.75-inch Duro-Guard EPS Type IX | Board-Max | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Board-Max | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER), Trufast Roofing Adhesive (SPLATTER) or WB II | -255.0 |
| R-37. | Existing asphaltic BUR or mineral surface cap sheet | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | CR-20 | (Optional) Additional layers of base insulation | CR-20 | Duro-Fleece or Duro-Fleece Plus / WB II | -45.0 |
| R-38. | Existing smooth surface modified bitumen | (Optional) Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | CR-20 | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20 | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER), Trufast Roofing Adhesive (SPLATTER) or WB II | -222.5 |

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

| System No. | Substrate (Notes 1 & 12) | Base Insulation Layer | | Top Insulation Layer | | Roof Cover (Note 16) | MDP (psf)* |
|------------|---|--|---------------------|---|---------------------|--|------------|
| | | Type | Attach (Note 6,7&8) | Type | Attach (Note 6,7&8) | | |
| R-39. | Existing smooth-surface SBS modified bitumen | Min. 0.75-inch Duro-Guard EPS IX | CR-20 | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20 | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER), Trufast Roofing Adhesive (SPLATTER) or WB II | -222.5 |
| R-40. | Existing smooth surface BUR or granule surface modified bitumen | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20 | None | N/A | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER), Trufast Roofing Adhesive (SPLATTER) or WB II | -245.0 |
| R-41. | Existing smooth surface BUR or granule surface modified bitumen | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | CR-20 | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20 | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (splatter) or WB II | -247.5 |
| R-42. | Existing smooth-surface asphalt BUR or granule-surface modified bitumen | Min. 0.75-inch Duro-Guard EPS IX | CR-20 | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | CR-20 | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER), Trufast Roofing Adhesive (SPLATTER) or WB II | -255.0 |
| R-43. | Existing asphaltic BUR or mineral surface cap sheet | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | Hot asphalt | (Optional) Additional layers of base insulation | Hot asphalt | Duro-Fleece or Duro-Fleece Plus / WB II | -45.0 |
| R-44. | Existing asphaltic BUR or mineral surface cap sheet | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | INSTA STIK Quik Set | (Optional) Additional layers of base insulation | INSTA STIK Quik Set | Duro-Fleece or Duro-Fleece Plus / WB II | -45.0 |
| R-45. | Existing asphaltic BUR or mineral surface cap sheet | Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | INSTA STIK Quik Set | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | INSTA STIK Quik Set | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER), Trufast Roofing Adhesive (SPLATTER) or WB II | -127.5 |
| R-46. | Existing asphalt built-up roof | (Optional) Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A | OlyBond 500 | (Optional) Additional layers of base insulation | OlyBond 500 | Duro-Fleece or Duro-Fleece Plus / WB II | -45.0 |
| R-47. | Existing asphalt built-up roof | (Optional) Min. 1.5-inch ACFoam II, Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO II-G | OlyBond 500 | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | OlyBond 500 | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (SPLATTER), Trufast Roofing Adhesive (SPLATTER) or WB II | -120.0 |

**TABLE 7B: RECOVER OVER STEEL SUBSTRATE
SYSTEM TYPE C-2: PLATE-BONDED ROOF COVER**

(All areas where the existing metal panels do not lay flush on the underlying purlin shall have a 0.25-inch diameter pilot hole pre-drilled into the panel prior to driving the Purlin Fastener into the purlin.)

| System No. | Substrate (Note 1) | Insulation Layer | Attachment | | Roof Cover | MDP (psf) |
|----------------------------------|---|---|--|---|--|-----------|
| | | | Fasteners (Note 11) | Spacing | | |
| RHINOBOND INDUCTION WELD: | | | | | | |
| R-48. | Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced max. 120-inch o.c. | One or more layers, any combination, preliminarily fastened | Trufast #12 Purlin Fasteners with RHINOBOND Insulation Plate (PVC) | 6-inch o.c. along purlins 120-inch o.c. | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded to RHINOBOND Insulation Plate (PVC) using RHINOBOND Installation Tool | -45.0 |
| R-49. | Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced max. 48-inch o.c. | One or more layers, any combination, preliminarily fastened | Trufast #12 Purlin Fasteners with RHINOBOND Insulation Plate (PVC) | 12-inch o.c. along purlins 48-inch o.c. | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded to RHINOBOND Insulation Plate (PVC) using RHINOBOND Installation Tool | -45.0 |
| R-50. | Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced max. 72-inch o.c. | One or more layers, any combination, preliminarily fastened | Trufast #12 Purlin Fasteners with RHINOBOND Insulation Plate (PVC) | 6-inch o.c. along purlins 72-inch o.c. | Duro-Last (min. 40-mil), Duro-Tuff (min. 50-mil) or Duro-Last EV (min. 50-mil) induction welded to RHINOBOND Insulation Plate (PVC) using RHINOBOND Installation Tool | -52.5 |
| R-51. | Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced max. 96-inch o.c. | One or more layers, any combination, preliminarily fastened | Trufast #12 Purlin Fasteners with RHINOBOND Insulation Plate (PVC) | 6-inch o.c. along purlins 96-inch o.c. | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded to RHINOBOND Insulation Plate (PVC) using RHINOBOND Installation Tool | -52.5 |
| R-52. | Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced max. 48-inch o.c. | One or more layers, any combination, preliminarily fastened | Trufast #12 Purlin Fasteners with RHINOBOND Insulation Plate (PVC) | 6-inch o.c. along purlins 48-inch o.c. | Duro-Last (min. 40-mil), Duro-Tuff (min. 50-mil) or Duro-Last EV (min. 50-mil) induction welded to RHINOBOND Insulation Plate (PVC) using RHINOBOND Installation Tool | -82.5 |
| R-53. | Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced max. 60-inch o.c. | One or more layers, any combination, preliminarily fastened | Trufast #12 Purlin Fasteners with RHINOBOND Insulation Plate (PVC) | 6-inch o.c. along purlins 60-inch o.c. | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded to RHINOBOND Insulation Plate (PVC) using RHINOBOND Installation Tool | -82.5 |
| R-54. | Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced max. 48-inch o.c. | One or more layers, any combination, preliminarily fastened | Trufast #12 Purlin Fasteners with RHINOBOND Insulation Plate (PVC) | 6-inch o.c. along purlins 48-inch o.c. | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded to RHINOBOND Insulation Plate (PVC) using RHINOBOND Installation Tool | -90.0 |
| ISOWELD INDUCTION WELD: | | | | | | |
| R-55. | Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi steel purlins spaced max. 60-inch o.c. | One or more layers, any combination, preliminarily fastened | SFS Purlin Fastener with <i>isoweld</i> ® F1-P-6.8-PVC Plates | 12-inch o.c. along purlins 60-inch o.c. | Duro-Last (min. 40 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded to SFS <i>isoweld</i> ® F1-P-6.8-PVC Plates with SFS <i>isoweld</i> ® 3000 stand-up tool | -45.0 |
| R-56. | Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi steel purlins spaced max. 60-inch o.c. | One or more layers, any combination, preliminarily fastened | SFS Purlin Fastener with <i>isoweld</i> ® F1-P-6.8-PVC Plates | 6-inch o.c. along purlins 60-inch o.c. | Duro-Last (min. 40 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded to SFS <i>isoweld</i> ® F1-P-6.8-PVC Plates with SFS <i>isoweld</i> ® 3000 stand-up tool | -90.0 |
| TRUFAST INDUCTION WELD: | | | | | | |

**TABLE 7B: RECOVER OVER STEEL SUBSTRATE
SYSTEM TYPE C-2: PLATE-BONDED ROOF COVER**

(All areas where the existing metal panels do not lay flush on the underlying purlin shall have a 0.25-inch diameter pilot hole pre-drilled into the panel prior to driving the Purlin Fastener into the purlin.)

| System No. | Substrate (Note 1) | Insulation Layer | Attachment | | Roof Cover | MDP (psf) |
|------------|--|---|---|---|--|-----------|
| | | | Fasteners (Note 11) | Spacing | | |
| R-57. | Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced max. 60-inch o.c. | One or more layers, any combination, preliminarily fastened | Trufast #12 Purlin Fastener with Trufast PVC IW Plate | 12-inch o.c. along purlins 60-inch o.c. | Duro-Last (min. 40 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -45.0 |
| R-58. | Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced max. 48-inch o.c. | One or more layers, any combination, preliminarily fastened | Trufast #12 Purlin Fastener with Trufast PVC IW Plate | 12-inch o.c. along purlins 48-inch o.c. | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -52.5 |
| R-59. | Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced max. 48-inch o.c. | One or more layers, any combination, preliminarily fastened | Trufast #12 Purlin Fastener with Trufast PVC IW Plate | 12-inch o.c. along purlins 48-inch o.c. | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -60.0 |
| R-60. | Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced max. 36-inch o.c. | One or more layers, any combination, preliminarily fastened | Trufast #12 Purlin Fastener with Trufast PVC IW Plate | 12-inch o.c. along purlins 36-inch o.c. | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -60.0 |
| R-61. | Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced max. 36-inch o.c. | One or more layers, any combination, preliminarily fastened | Trufast #12 Purlin Fastener with Trufast PVC IW Plate | 12-inch o.c. along purlins 36-inch o.c. | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -82.5 |
| R-62. | Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced max. 72-inch o.c. | One or more layers, any combination, preliminarily fastened | Trufast #12 Purlin Fastener with Trufast PVC IW Plate | 6-inch o.c. along purlins 72-inch o.c. | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -67.5 |
| R-63. | Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced max. 72-inch o.c. | One or more layers, any combination, preliminarily fastened | Trufast #12 Purlin Fastener with Trufast PVC IW Plate | 6-inch o.c. along purlins 72-inch o.c. | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -75.0 |
| R-64. | Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced max. 60-inch o.c. | One or more layers, any combination, preliminarily fastened | Trufast #12 Purlin Fastener with Trufast PVC IW Plate | 6-inch o.c. along purlins 60-inch o.c. | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -75.0 |
| R-65. | Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced max. 60-inch o.c. | One or more layers, any combination, preliminarily fastened | Trufast #12 Purlin Fastener with Trufast PVC IW Plate | 6-inch o.c. along purlins 60-inch o.c. | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -90.0 |
| R-66. | Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced max. 48-inch o.c. | One or more layers, any combination, preliminarily fastened | Trufast #12 Purlin Fastener with Trufast PVC IW Plate | 6-inch o.c. along purlins 48-inch o.c. | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -90.0 |
| R-67. | Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced max. 48-inch o.c. | One or more layers, any combination, preliminarily fastened | Trufast #12 Purlin Fastener with Trufast PVC IW Plate | 6-inch o.c. along purlins 48-inch o.c. | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -112.5 |
| R-68. | Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced max. 36-inch o.c. | One or more layers, any combination, preliminarily fastened | Trufast #12 Purlin Fastener with Trufast PVC IW Plate | 6-inch o.c. along purlins 36-inch o.c. | Duro-Last (min. 40 mil) or Duro-Tuff (min. 50 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -112.5 |

**TABLE 7B: RECOVER OVER STEEL SUBSTRATE
SYSTEM TYPE C-2: PLATE-BONDED ROOF COVER**

(All areas where the existing metal panels do not lay flush on the underlying purlin shall have a 0.25-inch diameter pilot hole pre-drilled into the panel prior to driving the Purlin Fastener into the purlin.)

| System No. | Substrate (Note 1) | Insulation Layer | Attachment | | Roof Cover | MDP (psf) |
|------------|--|---|---|--|--|-----------|
| | | | Fasteners (Note 11) | Spacing | | |
| R-69. | Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced max. 36-inch o.c. | One or more layers, any combination, preliminarily fastened | Trufast #12 Purlin Fastener with Trufast PVC IW Plate | 6-inch o.c. along purlins 36-inch o.c. | Duro-Last (min. 60 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded to Trufast PVC IW Plates with Trufast Induction Welding Tool and Magnets | -150.0 |

**TABLE 7C: RECOVER OVER STEEL SUBSTRATE
SYSTEM TYPE D-1: PRELIMINARILY ATTACHED INSULATION, MECHANICALLY ATTACHED ROOF COVER**

(All areas where the existing metal panels do not lay flush on the underlying purlin shall have a 0.25-inch diameter pilot hole pre-drilled into the panel prior to driving the Purlin Fastener into the purlin.)

| System No. | Substrate (Note 1) | Insulation (Note 14) | | Roof Cover | | | MDP (psf) |
|------------|--|---|---|------------------------|--|---|-----------|
| | | Type | Attach (Note 5) | Membrane | Fasteners (Note 11) | Attachment | |
| R-70. | Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced max. 120-inch o.c. | One or more layers, any combination | Prelim. attached | Duro-Last, min. 40 mil | Trufast #12 Purlin Fasteners with Duro-Last Poly-Plate | <u>Standard Lap System</u> fastened 9-inch o.c. within 3-inch wide tabs spaced 60-inch o.c. along purlins | -45.0 |
| R-71. | Min. 22 ga., Type B, Grade 40 steel with existing asphalt built-up roof (BUR) | Min. 0.5-inch DURO-GUARD EPS FAN FOLD or 3/8-inch DURO-GUARD XPS FAN FOLD | Duro-Last #14 Heavy Duty with Duro-Last 3-inch Metal Plates; 1 per 5.3 ft ² ; 6 parts per 4x8 ft section | Duro-Last, min. 40 mil | Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Last Poly-Plate or Duro-Last Cleat Plate | <u>Standard Lap System</u> fastened 12-inch o.c. within 3-inch wide tabs spaced 60-inch o.c. | -52.5 |
| R-72. | Min. 22 ga., Type B, Grade 40 steel with existing asphalt built-up roof (BUR) | Min. 0.5-inch DURO-GUARD EPS FAN FOLD or 3/8-inch DURO-GUARD XPS FAN FOLD | Duro-Last #14 Heavy Duty with Duro-Last 3-inch Metal Plates; 1 per 5.3 ft ² ; 6 parts per 4x8 ft section | Duro-Tuff, min. 50 mil | Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Last Poly-Plate or Duro-Last Cleat Plate | <u>Standard Lap System</u> fastened 12-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Side laps sealed with 1.5-inch heat-weld | -52.5 |
| R-73. | Min. 26 ga., type HVF, Grade 80 steel; 5 ft span; 5/8" puddle weld with weld-washer at each flute followed by min. 330 psi, min. 2-inch thick cellular lightweight insulating concrete and existing single ply roof membrane | Min. 0.5-inch DURO-GUARD EPS FAN FOLD or 3/8-inch DURO-GUARD XPS FAN FOLD | Loose-laid | Duro-Last, min. 40 mil | Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Last Poly-Plate or Duro-Last Cleat Plate | <u>Standard Lap System</u> fastened 6-inch o.c. within 3-inch wide tabs spaced 60-inch o.c. | -60.0 |
| R-74. | Min. 26 ga., type HVF, Grade 80 steel; 5 ft span; 5/8" puddle weld with weld-washer at each flute followed by min. 330 psi, min. 2-inch thick cellular lightweight insulating concrete and existing single ply roof membrane | Min. 0.5-inch DURO-GUARD EPS FAN FOLD or 3/8-inch DURO-GUARD XPS FAN FOLD | Loose-laid | Duro-Tuff, min. 50 mil | Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Last Poly-Plate or Duro-Last Cleat Plate | <u>Standard Lap System</u> fastened 6-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Side laps sealed with 1.5-inch heat-weld | -60.0 |

**TABLE 7D: RECOVER OVER CEMENTITIOUS WOOD FIBER SUBSTRATE
SYSTEM TYPE E-1: NON-INSULATED, MECHANICALLY ATTACHED ROOF COVER**

| System No. | Substrate (Note 1) | Roof Cover | | | MDP (psf) | |
|------------|---|------------------------|---|--|---|--------|
| | | Membrane | Fasteners (Note 11) | | | Attach |
| | | | Type | ENERFOAM Installation | | |
| R-75. | Min. 3-inch Tectum I; 4 ft span; OMG Purlin Fasteners with 2" diameter metal plates; 3.5" from each panel edge and 12" o.c. between edge fasteners; with existing single ply roof cover | Duro-Last, min. 40-mil | Duro-Last Auger Fastener (min. 2-inch embedment) with 2" Auger Plate and Dupont ENERFOAM™ | 7/16-inch diameter x 2.5-inch deep pilot hole filled with Dupont ENERFOAM followed by fastener installation within 20-40 seconds after dispensing the foam | Through-fastened 6-inch o.c. in rows 96-inch o.c. Fastener rows sealed with 10-inch wide strip of Duro-Last, with a 1.5-inch heat weld on all sides | -67.5 |

**TABLE 7E: RECOVER APPLICATIONS
SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER**

| System No. | Substrate (Notes 1 & 12) | Primer | Roof Cover (Note 16) | MDP (psf)* |
|------------|---|--------|--|------------|
| R-76. | Existing asphaltic roof system with mechanically fastened and/or adhered underlying components (insulation, coverboard or base sheet) and with existing granule-surface BUR or granule-surface SBS or APP modified bitumen cap sheet | None | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (splatter applied) | -150.0 |
| R-77. | Existing asphaltic roof system with adhered underlying components (insulation, coverboard or base sheet) over monolithic deck and with existing smooth- or granule-surface BUR or granule-surface SBS or APP modified bitumen cap sheet | None | Duro-Fleece or Duro-Fleece Plus / Duro-Fleece CR-20 (splatter applied) | -370.0 |