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| Department of Business A Participant | Product Approval USER: Public User | | |
| | Product Approval Menu > Product or Application Search > Application | <u>List</u> > Application Detail | |
| OFFICE OF THE SECRETARY | FL # | FL20663-R4 | |
| SEGRETARY | Application Type | Revision | |
| | Code Version | 2017 | |
| | Application Status | Approved | |
| | Comments | | |
| | Archived | | |
| | | | |
| | Product Manufacturer | GAF | |
| | Address/Phone/Email | 1 Campus Drive Parisppany, NJ 07054 (800) 766-3411 mstieh@gaf.com | |
| | Authorized Signature | Robert Nieminen Ireith@nemoetc.com | |
| | | neth@nemberc.com | |
| | Technical Representative | William Broussard | |
| | Address/Phone/Email | 1 Campus Drive Parsippany, NJ 07054 (800) 766-3411 TechnicalQuestionsGAF@gaf.com | |
| | Quality Assurance Representative Address/Phone/Email | | |
| | Category | Roofing | |
| | Subcategory | Liquid Applied Roof Systems | |
| | Compliance Method | Evaluation Report from a Florida Registered Archit Florida Professional Engineer Evaluation Report - Hardcopy Received | ect or a Licensed |
| | Florida Engineer or Architect Name who developed the Evaluation Report | Robert Nieminen | |
| | Florida License | PE-59166 | |
| | Quality Assurance Entity | UL LLC | |
| | Quality Assurance Contract Expiration Date Validated By | 12/17/2021 John W. Knezevich, PE | |
| | Valuated by | Validation Checklist - Hardcopy Received | |
| | Certificate of Independence | FL20663 R4 COI 2019 01 COI NIEMINEN.pdf | |
| | Referenced Standard and Year (of Standard) | <u>Standard</u> ASTM D6083 ASTM D6163 ASTM D6164 FM 4470 | Year 2005 2008 2011 2012 |
| | | FM 4474 | 2011 |
| | Equivalence of Product Standards Certified By | | |

Sections from the Code

| Product Approval Method | Method 1 Option D |
|---------------------------|-------------------|
| | |
| Date Submitted | 08/14/2019 |
| Date Validated | 08/15/2019 |
| Date Pending FBC Approval | 08/23/2019 |
| Date Approved | 10/15/2019 |

Summary of Products

| FL # Model, Number or Name | | Description | | |
|----------------------------|--|---|--|--|
| 20663.1 | GAF Liquid Applied Roof Systems | Acrylic, liquid applied roof systems; HydroStop and United Coatings Diathon brands. | | |
| to one system. Refer to | tside HVHZ: Yes A /A/-610 pressure in this application pertains ER Appendix for all systems and sign pressures. 2.) Refer to ER | Installation Instructions FL20663 R4 II 2019 08 FINAL A1 ER GAF LARS FL20663- R4.pdf Verified By: Robert Nieminen PE-59166 Created by Independent Third Party: Yes Evaluation Reports FL20663 R4 AE 2019 08 FINAL ER GAF LARS FL20663- R4.pdf Created by Independent Third Party: Yes | | |

Back Next

Contact Us :: 2601 Blair Stone Road, Tallahassee FL 32399 Phone: 850-487-1824

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| | | | - | NEMO etc. ficate of Authorization #32455 ristian Street, Unit #13 Oxford, CT 06478 (203) 262-9245 |
|----------------------|----------|-------------------|--------------|---|
| ENGINEER | EVALUATE | Test | CONSULT | CERTIFY |
| | | EVALUATION REPORT | | |
| GAF | | | Evaluation F | Report 10795.06.16-R4 |
| 1 Campus Drive | | | | FL20663-R4 |
| Parsippany, NJ 07054 | | | Date of | Issuance: 06/13/2016 |

(800) 766-3411 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 **6th Edition (2017) Florida Building Code** sections noted herein.

DESCRIPTION: GAF Liquid Applied Roof Systems

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

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

ADVERTISEMENT: The Evaluation Report number 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 5, plus a 16-page Appendix.

Prepared by:

Robert J.M. Nieminen, P.E. Florida Registration No. 59166, Florida DCA ANE1983

CERTIFICATION OF INDEPENDENCE:



The facsimile seal appearing was authorized by Robert Nieminen, P.E. on 08/12/2019. This does not serve as an electronically signed document.

- 1. Nanonet. 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. 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. 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.

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Revision 4: 08/12/2019



ROOFING SYSTEMS EVALUATION:

| | SCOPE: | | | |
|---|----------------------------------|--|-----------------------------|----------------------------------|
| | Product Category: | Roofing | | |
| | Sub-Category: | Liquid Applied Roof Syst | tems | |
| | | | | r has domenstrated complian |
| | | ent: GAF Liquid Applied Roof S | | |
| | _ | ctions of the 6 th Edition (2017) F | | |
| | following Standards. | Compliance is subject to the Inst | allation Requirements and L | imitations / Conditions of Use s |
| | forth herein. | | | |
| | | | | |
| • | STANDARDS: | Dura a subs | Chan dand | No r |
| | <u>Section</u> | Property | <u>Standard</u> | Year |
| | 1504.3.1 | Wind | FM 4474 | 2011 |
| | 1504.7 | Impact | FM 4470 | 2012 |
| | 1507.11.2 | Physicals | ASTM D6163 | 2008 |
| | 1507.11.2 | Physicals | ASTM D6164 | 2011 |
| | 1507.15.2 | Physical Properties | ASTM D6083 | 2005 |
| | REFERENCES: | | | |
| | Entity | Examination | Reference | Date |
| | ACRC (TST4671) | Wind | 09-018 | 10/27/2009 |
| | ACRC (TST4671) | Wind | 09-019 | 10/27/2009 |
| | ACRC (TST4671) | Wind | 09-020 | 10/28/2009 |
| | ACRC (TST4671) | Wind | 09-021 | 10/28/2009 |
| | ACRC (TST4671) | Wind | 09-022 | 10/29/2009 |
| | ACRC (TST4671) | Wind | 09-023 | 10/29/2009 |
| | ACRC (TST4671) | Wind | 10-001 | 02/10/2010 |
| | ACRC (TST4671) | Wind | 12-020 | 05/08/2012 |
| | ACRC (TST4671) | Wind | 16-003 | 03/04/2016 |
| | ERD (TST6049) | Wind | 4696-04-97-1 | 07/11/1997 |
| | ERD (TST6049) | Wind | 4697-12-00-1 | 12/07/2000 |
| | ERD (TST6049) | Physical Properties | G31360.03.10 | 03/31/2010 |
| | ERD (TST6049) | Physical Properties | G33470.01.11 | 01/13/2011 |
| | ERD (TST6049) | Physical Properties | G34140.04.11-2 | 04/25/2011 |
| | ERD (TST6049) | Physical Properties | G40630.01.14-1 | 01/06/2014 |
| | ERD (TST6049) | Physical Properties | G40630.01.14-2A | 01/07/2014 |
| | ERD (TST6049) | Physical Properties | G34140.04.11-5-R3 | 06/04/2015 |
| | ERD (TST6049) | Wind | GAF-SC10845.04.16 | 04/26/2016 |
| | FM (TST 1867) | FM 4470 | 3000150 | 09/01/1999 |
| | FM (TST 1867) | FM 4470 | 3023606 | 10/18/2006 |
| | FM (TST 1867) | FM 4470 | 3031350 | 09/27/2007 |
| | FM (TST 1867) | FM 4470 | 3044541 | 04/02/2012 |
| | FM (TST 1867) | FM 4470 | 3046328 | 09/13/2012 |
| | FM (TST 1867) | FM 4470 | 3048496 | 12/19/2013 |
| | FM (TST 1867) | FM 4470 | RR204674 | 04/06/2016 |
| | FM (TST 1867) | FM 4470 | RR204740 | 04/13/2016 |
| | FM (TST 1867) | FM 4470 | RR204846 | 05/09/2016 |
| | FM (TST 1867) | FM 4470 | RR204845 | 05/09/2016 |
| | FM (TST 1867) | FM 4470 | RR206245 | 09/30/2016 |
| | FM (TST 1867) | FM 4470 | 3055491 | 12/05/2016 |
| | FM (TST 1867) | FM 4470 | 3058483 | 12/09/2016 |
| | FM (TST 1867) | FM 4470 FM 4470 / 4474 | 3060374 | 03/03/2018 |
| | PRI (TST 5878) | ASTM D6083, FIN-B (SC) | HSI-007-02-01 | 03/25/2018 |
| | PRI (TST 5878) PRI (TST 5878) | ASTM D6083, FIN-B (SC) ASTM D6083, FIN-B (AZ) | | 03/25/2011 |
| | · · · · | | HSI-009-02-01 | |
| | PRI (TST 5878) | ASTM D6083, FOUD-A (AZ) | HSI-010-02-01 | 03/25/2011 |
| | PRI (TST 5878) | ASTM D6083, FOUD-A (SC) | HSI-011-02-01 | 03/25/2011 |
| | PRI (TST 5878) | Wind | GAF-457-02-04 | 02/05/2014 |

NEMO ETC, LLC Certificate of Authorization #32455

6TH EDITION (2017) FBC NON-HVHZ EVALUATION GAF Liquid Applied Roof Systems; (800) 766-3411 Evaluation Report 10795.06.16-R4 FL20663-R4 Revision 4: 08/12/2019 Page 2 of 5



| <u>Entity</u> | Examination | <u>Reference</u> | <u>Date</u> |
|--------------------|-------------------------|-------------------------------|-------------|
| PRI (TST 5878) | Small-Scale Performance | GAF-559-02-03 | 10/16/2014 |
| PRI (TST 5878) | Wind | QCP-018-02-01 | 11/14/2014 |
| PRI (TST 5878) | Wind | GAF-654-02-01 | 05/17/2016 |
| PRI (TST 5878) | ASTM D6083, FIN (SC) | GAF-777-02-01 | 09/15/2017 |
| UL, LLC. (QUA9625) | Quality Control | Inspection Report, R6935 (SC) | 04/25/2018 |

4. **PRODUCT DESCRIPTION:**

This Evaluation Report covers the **GAF Liquid Applied Roof Systems** applied to Approved substrates as outlined in the Limitations / Conditions of Use herein. The following products make up the subject roof covers.

| 4.1 | LIQUID APPLIED MEMBRANE COMPONENTS: | | | | | | |
|-----|--|---|---------------|--|--|--|--|
| | <u>Product</u> | Description | Specification | | | | |
| | HydroStop [®] PremiumCoat [®] Foundation Coat | Acrylic elastomeric waterproofing compound used as a base layer in the HydroStop® PremiumCoat [®] System | ASTM D6083 | | | | |
| | HydroStop [®] PremiumCoat [®] Finish Coat | Acrylic elastomeric waterproofing compound used as a top layer in the HydroStop® PremiumCoat [®] System | ASTM D6083 | | | | |
| | HydroStop [®] PremiumCoat [®] Fabric | Reinforcing fabric for the HydroStop® PremiumCoat [®] System and/or HydroStop® BarrierGuard [®] Waterproofing | Proprietary | | | | |
| | United Coatings™ Diathon® Base Coat | Acrylic elastomeric base coat for use in United Coatings™ Diathon® System | Proprietary | | | | |
| | United Coatings™ Diathon® Roof Coating | Acrylic elastomeric top coat for use in United Coatings™ Diathon® System | ASTM D6083 | | | | |

| 4.2 | PRIMERS: | | | | |
|-----|---|--------------|---|--------------------------------|--|
| | Product | | Description | | |
| | FireOut™ Fire Barrier Coating | | Water-based, fire-resistive coating | | |
| | HydroStop [®] BarrierGuard [®] Waterproofing | | Priming and waterproofing compoun | d for masonry surfaces | |
| | SureBond Primer | | Acrylic primer used for sealing masor | nry, metal and chalky surfaces | |
| 4.3 | SURFACING: | | | | |
| | <u>Product</u> | | Description | | |
| | HydroStop [®] TrafficCoat Deck Coating | | Acrylic elastomeric waterproofing compound used as a non-skid surfacing layer over the HydroStop® PremiumCoat [®] System | | |
| 4.4 | BASE SHEETS: | SASE SHEETS: | | | |
| | <u>Product</u> | Descripti | <u>ion</u> | Specification | |
| | GAFGLAS [®] Stratavent [®] Nailable Venting Base Sheet | - | s reinforced, asphalt coated, granule- surfaced, nailable base sheet | ASTM D4897, Type II | |
| 4.5 | BASE PLY MEMBRANES: | | | | |
| | <u>Product</u> | Descripti | on | Specification | |
| | Ruberoid [®] 20 Smooth | Fiberglas | s reinforced, SBS modified bitumen | ASTM D6163, Type I, Grade S | |
| | Ruberoid [®] Mop Smooth 1.5 | Polyester | r reinforced, SBS modified bitumen | ASTM D6164, Type I, Grade S | |
| | Ruberoid [®] Mop Smooth | Polyester | r reinforced, SBS modified bitumen | ASTM D6164, Type I, Grade S | |
| | Ruberoid [®] Mop Plus Smooth | Polyester | r reinforced, SBS modified bitumen | ASTM D6164, Type II, Grade S | |
| | Ruberoid [®] HW 25 Smooth | Fiberglas | s reinforced, SBS modified bitumen | ASTM D6163, Type I, Grade S | |
| | Ruberoid [®] HW Smooth | Polyester | r reinforced, SBS modified bitumen | ASTM D6164, Type I, Grade S | |
| | | | | | |

6TH EDITION (2017) FBC NON-HVHZ EVALUATION GAF Liquid Applied Roof Systems; (800) 766-3411 Evaluation Report 10795.06.16-R4 FL20663-R4 Revision 4: 08/12/2019 Page 3 of 5



5. LIMITATIONS:

- 5.1 This is a building code evaluation. Neither NEMO|etc. nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this Evaluation Report, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.
- 5.2 This Evaluation Report is not for use in HVHZ jurisdictions.
- 5.3 Refer to a current UL Roofing Materials Directory for fire ratings of this product.
- 5.4 For steel deck installations, foam plastic insulation shall be separated from the building interior in accordance with **FBC 2603.4** unless the exceptions stated in **FBC 2603.4.1** and **2603.6** apply.
- 5.5 The roof system evaluation herein pertains to above-deck roof components. Roof decks and structural members shall be in accordance with FBC requirements to the satisfaction of the Authority Having Jurisdiction. Load resistance of the roof deck shall be documented through proper codified and/or FBC Approval documentation.
- 5.6 For recover installations, the existing roof shall be examined in accordance with **FBC 1511**.
- 5.7 For mechanically attached insulation or membrane or strip-bonded insulation, the maximum design pressure for the selected assembly shall meet or exceed the Zone 1 design pressure determined in accordance with FBC Chapter 16. Zones 2 and 3 shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria. Commonly used methods are ANSI/SPRI WD1, FM Loss Prevention Data Sheet 1-29, Roofing Application Standard RAS 117 and Roofing Application Standard RAS 137. Assemblies marked with an asterisk* carry the limitations set forth in Section 2.2.10.1 of FM Loss Prevention Data Sheet 1-29 (January 2016) for Zone 2/3 enhancements.
- 5.8 For assemblies with all components fully bonded in place, the maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with **FBC Chapter 16**. No rational analysis is permitted for these systems.
- 5.9 For mechanically attached insulation or membrane over existing roof decks, fasteners shall be tested in the existing deck for withdrawal resistance. A qualified design professional shall review the data for comparison to the minimum requirements for the system. Testing and analysis shall be in accordance with **ANSI/SPRI FX-1** or **Testing Application Standard TAS 105**.
- 5.10 For bonded insulation or membrane over existing substrates in a re-roof (tear off) or recover installation, the existing deck or existing roof surface shall be examined for compatibility with the adhesive to be installed. If any surface conditions exist that bring system performance into question, field uplift testing in accordance with **ANSI/SPRI IA-1**, **ASTM E907**, **FM Loss Prevention Data Sheet 1-52** or **Testing Application Standard TAS 124** shall be conducted on mock-ups of the proposed new roof assembly.
- 5.11 For bonded insulation or membrane over existing substrates in a recover installation, the existing roof system shall be capable of resisting project design pressures on its own merit to the satisfaction of the Authority Having Jurisdiction, as documented through field uplift testing in accordance with **ASTM E907**, **FM Loss Prevention Data Sheet 1-52** or **Testing Application Standard TAS 124**.
- 5.12 Metal edge attachment (except gutters), shall be designed and installed for wind loads in accordance with FBC Chapter 16 and tested for resistance in accordance with ANSI/SPRI ES-1 or Roofing Application Standard RAS 111, except the basic wind speed shall be determined from FBC Figure 1609.3(1), 1609.3(2) or 1609.3(3).
- 5.13 All products in the roof assembly shall have quality assurance in accordance with **FAC Rule 61G20-3**. For non-GAF components listed within wind uplift rated assemblies in Appendix 1, refer to the Product Approval of the component manufacturer.



6. **INSTALLATION:**

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

7. BUILDING PERMIT REQUIREMENTS:

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

8. MANUFACTURING PLANTS:

Contact the named QA entity for information on plants covered under F.A.C. Rule 61G20-3 QA requirements.

9. QUALITY ASSURANCE ENTITY:

UL, LLC. - QUA9625; (847) 664-3281

- THE 15-PAGES THAT FOLLOW FORM PART OF THIS EVALUATION REPORT -



| TABLE | DECK | APPLICATION | TYPE | DESCRIPTION | PAGE |
|-------|------------------------------|-----------------------------------|------|--|-------|
| 1A | Wood | New, Reroof (Tear-Off) or Recover | С | Mech. Attached Insulation, Liquid Applied Roof System | 5 |
| 1B | Wood | New, Reroof (Tear-Off) or Recover | С | Mech. Attached Insulation, Bonded Base Ply, Liquid Applied Roof System | 5 |
| 1C | Wood | New or Reroof (Tear-Off) | E | Non-Insulated, Mechanically Attached Base Sheet, Liquid Applied Roof System | 5 |
| 2A | Steel or Structural concrete | New, Reroof (Tear-Off) or Recover | В | Mech. Attached Base Insulation, SPUF, Liquid Applied Roof System | 6 |
| 2B | Steel or Structural concrete | New, Reroof (Tear-Off) or Recover | В | Mech. Attached Base Insulation, Bonded Top Insulation, Bonded Base Ply, Liquid Applied Roof System | 6 |
| 2C | Steel or Structural concrete | New, Reroof (Tear-Off) or Recover | С | Mech. Attached Insulation, Liquid Applied Roof System | 7 |
| 2D | Steel or Structural concrete | New, Reroof (Tear-Off) or Recover | С | Mech. Attached Insulation, Bonded Base Ply, Liquid Applied Roof System | 7-8 |
| 3A | Structural concrete | New or Reroof (Tear-Off) | А | Bonded Insulation, Liquid Applied Roof System | 9 |
| 3B | Structural concrete | New or Reroof (Tear-Off) | А | Bonded Insulation, SPUF, Liquid Applied Roof System | 10 |
| 3C | Structural concrete | New or Reroof (Tear-Off) | А | Bonded Insulation, Bonded Base Ply, Liquid Applied Roof System | 10-11 |
| 3D | Structural concrete | New or Reroof (Tear-Off) | F | Non-Insulated, Liquid Applied Roof System | 11 |
| 4A | LWIC | New, Reroof (Tear-Off) | E | LWC to Deck, Mechanically Attached Base Sheet, Liquid Applied Roof System | 12 |
| 4B | LWIC | New | F | LWC to Deck, Non-Insulated, Liquid Applied Roof System | 12 |
| 5A | Various | Recover | А | Bonded Insulation, Liquid Applied Roof System | 13-14 |
| 5B | Various | Recover | А | Bonded Insulation, Bonded Base Ply, Liquid Applied Roof System | 14-16 |
| 5C | Various | Recover | F | Non-Insulated, Liquid Applied Roof System | 16 |

The following notes apply to the systems outlined herein:

1. The roof system evaluation herein pertains to above-deck roof components. Roof decks and structural members shall be in accordance with FBC requirements to the satisfaction of the Authority Having Jurisdiction. Load resistance of the roof deck shall be documented through proper codified and/or FBC Approval documentation.

2. Unless otherwise noted, insulation / base sheet fasteners shall be the following with the noted minimum fastener engagement for each deck type.

Wood: Drill-Tec[™] #12 Fastener or Drill-Tec[™] #14 Fastener with Drill-Tec[™] 3" Standard Steel Plate, Drill-Tec[™] 3" Steel Plate, Drill-Tec[™] 3 in. Ribbed Galvalume Plates (Flat), Drill-Tec[™] AccuTrac[®] Flat Plate or Drill-Tec[™] AccuTrac[®] Recessed Plate (insulation only) or Drill-Tec[™] ASAP 3S or Drill-Tec[™] Heavy Duty ASAP Roofing Fastener Assembled with a 3" Metal Plate. Minimum 0.75-inch plywood penetration or minimum 1-inch wood plank embedment.

Steel: Drill-Tec[™] #12 Fastener, Drill-Tec[™] #14 Fastener or Drill-Tec[™] XHD Fastener with Drill-Tec[™] 3" Standard Steel Plate, Drill-Tec[™] 3" Steel Plate, Drill-Tec[™] 3 in. Ribbed Galvalume Plates (Flat), Drill-Tec[™] AccuTrac[®] Flat Plate or Drill-Tec[™] AccuTrac[®] Recessed Plate (insulation only) or Drill-Tec[™] ASAP 3S or Drill-Tec[™] Heavy Duty ASAP Roofing Fastener Assembled with a 3" Metal Plate; Drill-Tec[™] Extra Heavy Duty ASAP Roofing Fastener - Insulation. Minimum 0.75-inch steel penetration and engage the top flute of the steel deck.

Structural concrete: Drill-Tec™ #14 Fastener or Drill-Tec™ CD-10 with Drill-Tec™ 3" Standard Steel Plate, Drill-Tec™ 3" Steel Plate, Drill-Tec™ 3" Steel Plate, Drill-Tec™ 3" Steel Plate, Drill-Tec™ 4" AccuTrac® Flat Plate or Drill-Tec™ 4" AccuTrac® Recessed Plate (insulation only) or Drill-Tec™ Heavy Duty ASAP Roofing Fastener Assembled with a 3" Metal Plate. Minimum 1-inch embedment into pilot hole in accordance with the fastener manufacturer's published installation instructions.

3. Unless otherwise noted, insulation may be any one layer or combination of polyisocyanurate, polystyrene, wood fiberboard, perlite, gypsum-based roof board or mineral wool roof board that meets the QA requirements of F.A.C. Rule 61G20-3 and is documented as meeting FBC 1505.1 and, for foam plastic, FBC Chapter 26, when installed with the roof cover. GAF FireOut[™] Fire Barrier Coating or VersaShield[®] Solo[®] Fire-Resistant Slip Sheet, installed in accordance with GAF published installation instructions and fire resistance certification listings, may be used as a non-load-bearing, fire-barrier / slip-sheet component within any system outlined herein.

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- 4. 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;
 - \triangleright Hot asphalt (HA):

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- GAF 2-Part Roofing Adhesive (GAF 2-Part): Continuous 2.5 to 3.5-inch wide ribbons, 12-inch o.c.
- \geq LRF Adhesive M (LRF-M): Continuous 0.75 to 1-inch wide ribbons, 12-inch o.c.
- ۶ OlvBond 500[®] (OB500):
 - Continuous 0.75 to 1-inch wide ribbons. 12-inch o.c. using PaceCart or SpotShot. Note: OlvBond 500[®] Green may be used in place of OlvBond 500[®].
- \triangleright Note: When multiple layers(s) of insulation and/or coverboard are installed in ribbon-applied adhesive, board joints shall be staggered.

Full coverage at 25-30 lbs/square.

- \geq 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.
- 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 5. 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:
 - MDP = -240.0 psf (Min. 0.5-inch thick) \triangleright Hot Asphalt:
 - GAF 2-Part Roofing Adhesive (GAF 2-Part): MDP = -117.5 psf (Min. 1.0-inch thick) \triangleright
 - ≻ LRF Adhesive M (LRF-M): MDP = -232.5 psf (Min. 0.5-inch thick EnergyGuard[™] Polyiso Insulation, EnergyGuard[™] NH Polyiso Insulation, EnergyGuard[™] Ultra Polyiso Insulation, EnergyGuard[™] NH Ultra Polyiso Insulation)
 - OlyBond 500[®] (OB500): MDP = -292.5 psf (Min. 0.5-inch thick EnergyGuard[™] Polyiso Insulation, EnergyGuard[™] NH Polyiso Insulation, EnergyGuard[™] Ultra Polyiso Insulation, EnergyGuard[™] \geq NH Ultra Polyiso Insulation)
 - \geq OlvBond 500[®] (OB500): MDP = -315.0 psf (Min. 0.5-inch thick EnergyGuard[™] RH or RN)
 - OlyBond 500[®] (OB500): \geq MDP = -487.5 psf (Min. 0.5-inch thick EnergyGuard[™] RA)
- Bonded polyisocyanurate insulation boards shall be maximum 4 x 4 ft. 6.
- 7. For mechanically attached components or partially bonded insulation, the maximum design pressure for the selected assembly shall meet or exceed the Zone 1 design pressure determined in accordance with FBC Chapter 16, and Zones 2 and 3 shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria. Commonly used methods are ANSI/SPRI WD1, FM Loss Prevention Data Sheet 1-29 and Roofing Application Standard RAS 117. Assemblies marked with an asterisk* carry the limitations set forth in Section 2.2.10.1 of FM Loss Prevention Data Sheet 1-29 (January 2016) for Zone 2/3 enhancements for Zone 2/3 enhancements.
- 8. For assemblies with all components fully bonded in place, the maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with FBC Chapter 16, and no rational analysis is permitted.
- 9 For mechanically attached components over existing decks, fasteners shall be tested in the existing deck for withdrawal resistance. A qualified design professional shall review the data for comparison to the minimum requirements for the system. Testing and analysis shall be in accordance with ANSI/SPRI FX-1 or Testing Application Standard TAS 105.
- 10. For existing substrates in a bonded recover or re-roof installation, the existing roof surface or existing roof deck shall be examined for compatibility and bond performance with the selected adhesive, and the existing roof system (for recover) 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 ANSI/SPRI IA-1, ASTM E907, FM Loss Prevention Data Sheet 1-52 or Testing Application Standard TAS 124.
- 11. 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" LWC 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). Unless otherwise noted, 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.



12. Unless otherwise noted, modified bitumen membrane references herein are as follows:

| | Modified Bitumen Base PLy references: | | | | |
|-----------|---------------------------------------|---|---|--|--|
| REFERENCE | LAYER | MATERIAL | APPLICATION | | |
| SBS-CA1 | Base Ply: | Ruberoid [®] 20 Smooth, Ruberoid [®] Mop Smooth 1.5 | Matrix [®] 101 Premium SBS Membrane Adhesive at 1.5 – 2.0 gal/square. 3-inch wide side laps are torched or hot air welded. | | |
| SBS-CA2 | Base Ply: | Ruberoid® 20 Smooth, Ruberoid® Mop Smooth 1.5, Ruberoid® Mop Smooth, Ruberoid® Mop Plus Smooth | GAF 2-Part Roofing Adhesive, spatter applied at 3.75 lbs/square. 3-inch wide side laps are torched or hot air welded. | | |
| SBS-TA | Base Ply: | Ruberoid [®] HW Smooth or Ruberoid [®] HW 25 Smooth | Torch-applied. 3-inch wide side laps are torched or hot air welded. | | |

13. Unless otherwise noted, application rates of the components are as follows:

| | COMPONENTS & APPLICATION RATES: | | | | |
|--|---|--|--|--|--|
| PRODUCT | APPLICATION | | | | |
| HydroStop [®] BarrierGuard [®] Waterproofing | Two (2) coats at 0.67 gal/square per coat | | | | |
| SureBond Primer | 0.5 gal/square | | | | |
| HydroStop [®] PremiumCoat [®] Insulation Joint Treatment: | Top Insulation Layer if no Base Ply is installed: HydroStop® PremiumCoat® Foundation Coat is brush applied over all top-layer insulation joints at 6-inch width at a rate of 1.25 gal./square, centered about each joint. 6-inch wide HydroStop® PremiumCoat® Fabric is embedded in the wet HydroStop® PremiumCoat® Foundation Coat. The fabric is then saturated with additional HydroStop® PremiumCoat® Foundation Coat brush applied at 1.25 gal/square. | | | | |
| HydroStop PremiumCoat Base Sheet or Base Ply Lap Treatment: | (OPTIONAL) For use over Base Sheet or Base Ply only: HydroStop® PremiumCoat® Foundation Coat is brush applied over all base sheet or base ply laps at 6- inch width at a rate of 1.25 gal./square, centered about each lap. 6-inch wide HydroStop® PremiumCoat® Fabric is embedded in the wet HydroStop® PremiumCoat® Foundation Coat. The fabric is then saturated with additional HydroStop® PremiumCoat® Foundation Coat brush applied at 1.25 gal/square. | | | | |
| HydroStop [®] PremiumCoat [®] System: | HydroStop® PremiumCoat® Foundation Coat is brush applied at a minimum rate of 1.25 gal./square. HydroStop® PremiumCoat® Fabric is embedded in the wet HydroStop® PremiumCoat® Foundation Coat base coat with 4 in. wide seams and is saturated with additional HydroStop® PremiumCoat® Foundation Coat brush applied at a minimum rate of 1.25 gal./square. Two (2) or more coats of HydroStop® PremiumCoat® Finish Coat are applied at a minimum rate of 0.75 gal./square per coat. | | | | |
| HydroStop [®] TrafficCoat Deck Coating: | Per GAF published instructions | | | | |
| United Coatings Diathon Base Coat | 1.75 gal/sq. | | | | |
| United Coatings Diathon Roof Coating | 1.75 gal/sq. | | | | |

14. Vapor barrier options for over structural concrete deck with adhered insulation carry the following Maximum Design Pressure (MDP) limitations. The lesser of the MDP listings below vs. those in Table 3A, 3B or 3C applies:

| | VAPOR BARRIER OPTIONS; STRUCTURAL CONCRETE DECK; ADHERED INSULATION PER TABLES 3A, 3B OR 3C | | | | | | | | |
|--------|---|--|---------------------|--------------------------|-----------|--|--|--|--|
| OPTION | OPTION # PRIMER | VAPOR BARRIER | INSULATION ADHESIVE | | | | | | |
| # | | ТҮРЕ | ATTACH | INSOLATION ADRESIVE | MDP (PSF) | | | | |
| VB-1. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | One or two plies, GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS Ply 4, Tri-Ply Ply 4 or GAFGLAS FlexPly 6 | Hot asphalt applied | Hot asphalt | -360.0 | | | | |
| VB-2. | GAF SA Primer | Ruberoid SA Universal Base | Self-adhering | GAF 2-Part, 12-inch o.c. | -157.5 | | | | |
| VB-3. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | Ruberoid Torch Granule | Torch-applied | GAF 2-Part, 12-inch o.c. | -169.0 | | | | |
| VB-4. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | Ruberoid HW 25 Smooth or Ruberoid HW Smooth | Torch-applied | GAF 2-Part, 12-inch o.c. | -180.0 | | | | |
| VB-5. | GAF SA Primer | GAF SA Vapor Retarder | Self-adhering | GAF 2-Part, 12-inch o.c. | -202.5 | | | | |
| VB-6. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | Liberty SBS Self-Adhering Cap Sheet | Self-adhering | GAF 2-Part, 12-inch o.c. | -250.0 | | | | |
| VB-7. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | One or two plies, GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS Ply 4, Tri-Ply Ply 4 or GAFGLAS FlexPly 6 | Hot asphalt applied | GAF 2-Part, 12-inch o.c. | -262.5 | | | | |
| VB-8. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | Ruberoid 30 | Hot asphalt applied | GAF 2-Part, 12-inch o.c. | -270.0 | | | | |

6TH EDITION (2017) FBC NON-HVHZ EVALUATION GAF Liquid Applied Roof Systems; (800) 766-3411 Evaluation Report 10795.06.16-R4 for FL20663-R4 Revision 4: 04/12/2019 Appendix 1, Page 3 of 16



| | VAPOR BARRIE | R OPTIONS; STRUCTURAL CONCRETE DECK; ADHERED INSULATION PER TABI | LES 3A, 3B OR 3C | | |
|--------|--|--|---|---------------------------|-----------|
| OPTION | PRIMER | VAPOR BARRIER | | INSULATION ADHESIVE | MDP (PSF) |
| # | PRIVIER | ТҮРЕ | ATTACH | INSOLATION ADRESIVE | WDP (PSF) |
| VB-9. | GAF SA Primer | Ruberoid SA Universal Base Sheet | Self-adhering | LRF-M, 12-inch o.c. | -157.5 |
| VB-10. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | Ruberoid HW 25 Smooth or Ruberoid HW Smooth | Torch-applied | LRF-M, 12-inch o.c. | -180.0 |
| VB-11. | GAF SA Primer | GAF SA Vapor Retarder | Self-adhering | LRF-M, 12-inch o.c. | -202.5 |
| VB-12. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | One or two plies, GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS Ply 4, Tri-Ply Ply 4 or GAFGLAS FlexPly 6 | Hot asphalt applied | LRF-M, 12-inch o.c. | -495.0 |
| VB-13. | GAF SA Primer | Ruberoid SA Universal Base Sheet | Self-adhering | OlyBond 500, 12-inch o.c. | -157.5 |
| VB-14. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | Liberty SBS Self-Adhering Cap Sheet | Self-adhering | OlyBond 500, 12-inch o.c. | -187.5 |
| VB-15. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | Ruberoid Torch Smooth | Torch-applied | OlyBond 500, 12-inch o.c. | -165.0 |
| VB-16. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | Ruberoid HW 25 Smooth | Torch-applied | OlyBond 500, 12-inch o.c. | -180.0 |
| VB-17. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | Ruberoid 20 Smooth | Matrix 102 SBS Membrane Adhesive at 1.5 gal/square | OlyBond 500, 12-inch o.c. | -202.5 |
| VB-18. | GAF SA Primer | GAF SA Vapor Retarder | Self-adhering | OlyBond 500, 12-inch o.c. | -202.5 |
| VB-19. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | Ruberoid HW Smooth | Torch-applied | OlyBond 500, 12-inch o.c. | -232.5 |
| VB-20. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | One or two plies, GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS Ply 4, Tri-Ply Ply 4 or GAFGLAS FlexPly 6 | Hot asphalt applied | OlyBond 500, 12-inch o.c. | -352.5 |

15. HydroStop® TrafficCoat Deck Coating may be applied to the final HydroStop® PremiumCoat® Finish Coat surface with no adverse affect on system wind uplift performance.

16. The following insulations are interchangeable within the scope of this Evaluation Report:

- ➢ EnergyGuard Polyiso Insulation ⇒ EnergyGuard NH Polyiso Insulation;
- ➢ EnergyGuard Ultra Polyiso Insulation ⇒ EnergyGuard NH Ultra Polyiso Insulation.

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



| | TABLE 1A: WOOD DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE C: MECHANICALLY ATTACHED INSULATION, LIQUID APPLIED ROOF SYSTEM | | | | | | | | | | |
|--------|--|--|-----------------------------------|---|----------------------------|---|------------------------------------|-------|--|--|--|
| System | Deck | Base Insulation and/or Thermal | | Top Insulation Layer | | Roof Cover (Note 13) | | MDP | | | |
| No. | (Note 1) | Barrier Layer(s) | Туре | Fasteners | Joint Treatment | LARS | (psf) | | | | |
| W-1. | Min. 19/32-inch plywood | (Optional) One or more layers, any combination, loose laid | Min. 0.25-inch Dens Deck | Drill-Tec #12 or #14 Fastener with Drill-Tec 3" Standard Steel Plate | 1 per 1.33 ft ² | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -60.0 | | | |
| W-2. | Min. 15/32-inch plywood | (Optional) One or more layers, any combination, loose laid | Min. 0.25-inch Dens Deck Prime | Drill-Tec #12 or #14 Fastener with Drill-Tec 3" Standard Steel Plate | 1 per 1.33 ft ² | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -67.5 | | | |

| | TABLE 1B: WOOD DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE C: MECHANICALLY ATTACHED INSULATION, BONDED BASE PLY, LIQUID APPLIED ROOF SYSTEM | | | | | | | | | | |
|------|---|--|-----------------------------------|---|----------------------------|----------------------|---|------------------------------------|-------|--|--|
| | | | | | | MDP | | | | | |
| No. | (Note 1) | Barrier Layer(s) | Туре | Fasteners | Attach | Base Ply | Base Ply Treatment | LARS | (psf) | | |
| W-3. | Min. 15/32-inch plywood | (Optional) One or more layers, any combination, loose laid | Min. 0.25-inch Dens Deck Prime | Drill-Tec #12 or #14 Fastener with Drill-Tec 3" Standard Steel Plate | 1 per 1.33 ft ² | SBS-CA2 or SBS-TA | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -67.5 | | |

| | TABLE 1C: WOOD DECKS – NEW CONSTRUCTION or REROOF (TEAR-OFF) SYSTEM TYPE E: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, LIQUID APPLIED ROOF SYSTEM | | | | | | | | | | |
|---------------|--|--|---|--|---|---------------------------------|----------------|--|--|--|--|
| System No. | System No. Deck (Note 1) Slip Sheet Base Base Sheet Roof Cover (Note 1) | | | | | | | | | | |
| W-4. | Min. 19/32-inch plywood | (Optional) GAF FireOut Fire Barrier Coating or VersaShield Solo Fire- Resistant Slip Sheet | GAFGLAS Stratavent Nailable Venting Base | Min. 12 ga. annular ring shank nails and 1-5/8" diameter tin caps | 7-inch o.c. at 4-inch wide laps and 7-inch o.c. at two (2) equally spaced, staggered center rows | HydroStop PremiumCoat System | (psf) -45.0 | | | | |



| | | | | | ICRETE DECKS – NEW CONSTRUCTION, REROOF (TE TTACHED BASE INSULATION, SPUF, LIQUID APPLIE | | | |
|--------|--|--|--------|-------------------------------|---|---|---|--------|
| System | Deck | Base Insulation | | | Spray Applied Polyurethane Foam | Roof Cove | MDP | |
| No. | (Note 1) | Туре | Fasten | Attach | Spray Applied Polydrethane Poant | Base Coat | Top Coat | (psf) |
| S-1 | Min. 22 ga., type B, Grade 33 steel or structural concrete | Min. 2-inch EnergyGuard Polyiso Insulation | Note 2 | 1 per 4 ft ² | 1.5 - 6.0 in. thick BASF "ELASTOSPRAY 81285" applied at 2.85 lb./ft ³ or BASF "ELASTOSPRAY 81305" applied at 3.0 lb./ft ³ (Refer to FL1493) | United Coatings Diathon Base Coat or Diathon Roof Coating | United Coatings Diathon Roof Coating | -30.0* |
| S-2 | Min. 22 ga., type B, Grade 33 steel or structural concrete | Min. 1.5-inch EnergyGuard Polyiso Insulation | Note 2 | 1 per 2.67 ft ² | 1.5 - 6.0 in. thick BASF "ELASTOSPRAY 81285" applied at 2.85 lb./ft ³ or BASF "ELASTOSPRAY 81305" applied at 3.0 lb./ft ³ (Refer to FL1493) | United Coatings Diathon Base Coat or Diathon Roof Coating | United Coatings Diathon Roof Coating | -37.5* |
| S-3 | Min. 22 ga., type B, Grade 33 steel or structural concrete | Min. 2-inch EnergyGuard Polyiso Insulation | Note 2 | 1 per 2.9 ft ² | 1.5 - 6.0 in. thick BASF "ELASTOSPRAY 81285" applied at 2.85 lb./ft ³ or BASF "ELASTOSPRAY 81305" applied at 3.0 lb./ft ³ (Refer to FL1493) | United Coatings Diathon Base Coat or Diathon Roof Coating | United Coatings Diathon Roof Coating | -45.0* |
| S-4 | Min. 22 ga., type B, Grade 33 steel or structural concrete | Min. 1.5-inch EnergyGuard Polyiso Insulation | Note 2 | 1 per 1.45 ft² | 1.5 - 6.0 in. thick BASF "ELASTOSPRAY 81285" applied at 2.85 lb./ft ³ or BASF "ELASTOSPRAY 81305" applied at 3.0 lb./ft ³ (Refer to FL1493) | United Coatings Diathon Base Coat or Diathon Roof Coating | United Coatings Diathon Roof Coating | -82.5 |

| TABLE 2B: STEEL OR STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE B: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED BASE PLY, LIQUID APPLIED ROOF SYSTEM | | | | | | | | | | | |
|---|--|--|--------|---------------------------|--|------------------------------|---------------------------|---|------------------------------------|--------|--|
| System | Deck | Base Insulation | | | Top Insulation | | Roof Cover (Note 12 & 13) | | | MDP | |
| No. | (Note 1) | Туре | Fasten | Attach | Туре | Attach | Base Ply | Base Ply Treatment | LARS | (psf) | |
| S-5 | Min. 22 ga., type B, Grade 33 steel or structural concrete | Min. 1.5-inch EnergyGuard Polyiso Insulation | Note 2 | 1 per 3.2 ft ² | Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | GAF 2-Part, LRF- M, OB500 | SBS-TA | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -37.5* | |
| S-6 | Min. 22 ga., type B, Grade 33 steel or structural concrete | Min. 1.5-inch EnergyGuard Polyiso Insulation | Note 2 | 1 per 2 ft ² | Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | GAF 2-Part, LRF- M, OB500 | SBS-TA | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -45.0* | |
| S-7 | Min. 22 ga., type B, Grade 33 steel or structural concrete | Min. 2-inch EnergyGuard Polyiso Insulation | Note 2 | 1 per 4 ft ² | Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | GAF 2-Part, LRF- M, OB500 | SBS-TA | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -45.0* | |



| | | | OR STRUCTURAL CONCRE | | | | | |
|--------|--|--|--|---|----------------------------|---|------------------------------------|--------|
| System | Deck | Deep Insulation Laws | т | op Insulation Layer | | Roof Cover (Note 13) | | |
| No. | (Note 1) | Base Insulation Layer | Туре | Type Fasten | | Joint Treatment | LARS | (psf) |
| S-8 | Min. 22 ga., type B, Grade 33 steel or structural concrete | (Optional for Recover) One or more layers, any combination, loose laid | Min. 1.5-inch EnergyGuard Polyiso Insulation | Note 2 | 1 per 2 ft² | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -45.0* |
| S-9 | Min. 22 ga., type B, Grade 33 steel or structural concrete | (Optional for Recover) One or more layers, any combination, loose laid | Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | Note 2 | 1 per 2 ft ² | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -45.0* |
| S-10 | Min. 22 ga., type B, Grade 33 steel or structural concrete | (Optional for Recover) One or more layers, any combination, loose laid | Min. 0.25-inch Dens Deck Prime | Note 2 (no Drill-Tec 3" Steel Plate) | 1 per 1.45 ft ² | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -67.5 |
| S-11 | Min. 22 ga., type B, Grade 33 steel or structural concrete | (Optional for Recover) One or more layers, any combination, loose laid | Min. 1.5-inch EnergyGuard Polyiso Insulation | Note 2 | 1 per 1.45 ft ² | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -75.0 |
| S-12 | Min. 22 ga., type B, Grade 33 steel or structural concrete | (Optional for Recover) One or more layers, any combination, loose laid | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Note 2 (no Drill-Tec 3" Steel Plate) | 1 per 1.45 ft ² | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -75.0 |

| | TABLE 2D: STEEL OR STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE C: MECHANICALLY ATTACHED INSULATION, BONDED BASE PLY, LIQUID APPLIED ROOF SYSTEM | | | | | | | | | | | |
|--------|---|--|--|---|----------------------------|------------------------------|---|------------------------------------|--------|--|--|--|
| System | Deck | Base Insulation Layer | Top Insulation Layer | | | Roof Cover (Note 12 & 13) | | | MDP | | | |
| No. | (Note 1) | Base insulation Layer | Туре | Fasten | Attach | Base Ply | Base Ply Treatment | LARS | (psf) | | | |
| S-13 | Min. 22 ga., type B, Grade 33 steel or structural concrete | (Optional for Recover) One or more layers, any combination, loose laid | Min. 1.5-inch EnergyGuard Polyiso Insulation | Note 2 | 1 per 2 ft ² | SBS-CA1, SBS- CA2 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -45.0* | | | |
| S-14 | Min. 22 ga., type B, Grade 33 steel or structural concrete | (Optional for Recover) One or more layers, any combination, loose laid | Min. 2-inch EnergyGuard Polyiso Insulation | Note 2 | 1 per 2.9 ft ² | SBS-CA1, SBS- CA2 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -45.0* | | | |
| S-15 | Min. 22 ga., type B, Grade 33 steel or structural concrete | (Optional for Recover) One or more layers, any combination, loose laid | Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | Note 2 | 1 per 2 ft ² | SBS-CA1, SBS- CA2, SBS-TA | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -45.0* | | | |
| S-16 | Min. 22 ga., type B, Grade 33 steel or structural concrete | (Optional for Recover) One or more layers, any combination, loose laid | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Note 2 | 1 per 1.33 ft ² | SBS-CA1 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -52.5 | | | |
| S-17 | Min. 22 ga., type B, Grade 33 steel or structural concrete | (Optional for Recover) One or more layers, any combination, loose laid | Min. 0.25-inch Dens Deck Prime | Note 2 (no Drill-Tec 3" Steel Plate) | 1 per 1.45 ft ² | SBS-CA2 or SBS-TA | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -67.5 | | | |



| | | | OR STRUCTURAL CONCRE | | | • | | | |
|--------|--|--|---|---|----------------------------|---------------------------|---|------------------------------------|-------|
| System | Deck | Page Insulation Layor | т | op Insulation Layer | | Roof Cover (Note 12 & 13) | | | MDP |
| No. | (Note 1) | Base Insulation Layer | Туре | Fasten | Attach | Base Ply | Base Ply Treatment | LARS | (psf) |
| S-18 | Min. 22 ga., type B, Grade 33 steel or structural concrete | (Optional for Recover) One or more layers, any combination, loose laid | Min. 1.5-inch EnergyGuard Polyiso Insulation | Note 2 | 1 per 1.45 ft ² | SBS-CA1 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -67.5 |
| S-19 | Min. 22 ga., type B, Grade 33 steel or structural concrete | (Optional for Recover) One or more layers, any combination, loose laid | Min. 2-inch EnergyGuard Polyiso Insulation | Note 2 | 1 per 1.78 ft² | SBS-CA1, SBS- CA2 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -67.5 |
| S-20 | Min. 22 ga., type B, Grade 33 steel or structural concrete | (Optional for Recover) One or more layers, any combination, loose laid | Min. 0.375-inch SECUROCK Gypsum-Fiber Roof Board | Note 2 | 1 per 1.33 ft² | SBS-CA1 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -67.5 |
| S-21 | Min. 22 ga., type B, Grade 33 steel or structural concrete | (Optional for Recover) One or more layers, any combination, loose laid | Min. 1.5-inch EnergyGuard Polyiso Insulation | Note 2 | 1 per 1.45 ft ² | SBS-CA2 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -75.0 |
| S-22 | Min. 22 ga., type B, Grade 33 steel or structural concrete | (Optional for Recover) One or more layers, any combination, loose laid | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | Note 2 (no Drill-Tec 3" Steel Plate) | 1 per 1.45 ft ² | SBS-CA2 or SBS-TA | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -75.0 |



| | | | | SYSTEM TYPE A: BONI | DED INSULA | CONSTRUCTION OR REROOF (TEAR-OFF) TION, LIQUID APPLIED ROOF SYSTEM r vapor barrier options | | |
|--------|------------------------|--|------------|--|------------|--|------------------------------|--------|
| System | Deck | Base Insulation La | yer | Top Insulation La | yer | Roof Cover (Note 13) | | MDP |
| No. | (Note 1) | Туре | Attach | Туре | Attach | Joint/Lap Treatment | LARS | (psf) |
| C-1 | Structural concrete | Min. 0.5-inch EnergyGuard Polyiso Insulation | GAF 2-Part | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | GAF 2-Part | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -75.0 |
| C-2 | Structural concrete | Min. 0.5-inch EnergyGuard Polyiso Insulation | GAF 2-Part | Min. 0.25-inch Dens Deck or Dens Deck Prime | GAF 2-Part | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -135.0 |
| C-3 | Structural concrete | Min. 1-inch EnergyGuard Polyiso Insulation | GAF 2-Part | (Optional) Additional layer(s) base insulation | GAF 2-Part | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -222.5 |
| C-4 | Structural concrete | Min. 1-inch EnergyGuard Polyiso Insulation | GAF 2-Part | Min. 0.25-inch Dens Deck Prime | GAF 2-Part | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -222.5 |
| C-5 | Structural concrete | Min. 1.5-inch ACFoam IV | GAF 2-Part | (Optional) Additional layer(s) base insulation | GAF 2-Part | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -287.5 |
| C-6 | Structural concrete | Min. 1.5-inch EnergyGuard Polyiso Insulation | GAF 2-Part | Min. 0.25-inch Dens Deck Prime | GAF 2-Part | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -335.0 |
| C-7 | Structural concrete | Min. 1.5-inch EnergyGuard RA Polyiso Insulation | GAF 2-Part | (Optional) Additional layer(s) base insulation | GAF 2-Part | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -390.0 |
| C-8 | Structural concrete | Min. 0.5-inch EnergyGuard Polyiso Insulation | LRF-M | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | LRF-M | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -75.0 |
| C-9 | Structural concrete | Min. 0.5-inch EnergyGuard Polyiso Insulation | LRF-M | Min. 0.25-inch Dens Deck | LRF-M | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -135.0 |
| C-10 | Structural concrete | Min. 0.5-inch EnergyGuard Polyiso Insulation | LRF-M | (Optional) Additional layer(s) base insulation | LRF-M | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -222.5 |
| C-11 | Structural concrete | Min. 0.5-inch EnergyGuard Polyiso Insulation | LRF-M | Min. 0.25-inch Dens Deck Prime | LRF-M | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -335.0 |
| C-12 | Structural concrete | Min. 0.5-inch EnergyGuard Polyiso Insulation | OB500 | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | OB500 | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -75.0 |
| C-13 | Structural concrete | Min. 0.5-inch EnergyGuard Polyiso Insulation | OB500 | Min. 0.25-inch Dens Deck or Dens Deck Prime | OB500 | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -135.0 |
| C-14 | Structural concrete | Min. 1-inch EnergyGuard Polyiso Insulation | OB500 | (Optional) Additional layer(s) base insulation | OB500 | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -222.5 |
| C-15 | Structural concrete | Min. 1-inch EnergyGuard Polyiso Insulation | OB500 | Min. 0.25-inch Dens Deck Prime | OB500 | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -222.5 |
| C-16 | Structural concrete | Min. 1.5-inch EnergyGuard Polyiso Insulation | OB500 | Min. 0.25-inch Dens Deck Prime | OB500 | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -335.0 |



| | | SYSTI | | NCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF ATION, SPRAY APPLIED POLYURETHANE FOAM, LIQUID APP | , | | |
|--------|---------------------|---|---|---|--|---|--------|
| | | | | REFER TO NOTE 14 FOR VAPOR BARRIER OPTIONS | | | |
| System | Deck | Base Insu | lation Layer | Course Applied Delegenthese From | Roof Cover (N | ote 13) | MDP |
| No. | (Note 1) | Туре | Attach | Spray Applied Polyurethane Foam | Base Coat | Top Coat | (psf) |
| C-17 | Structural concrete | Min. 1.5-inch EnergyGuard Polyiso Insulation | GAF 2-Part | 1.5 – 6.0 in. thick BASF "ELASTOSPRAY 81285" applied at 2.85 lb./ft ³ or BASF "ELASTOSPRAY 81305" applied at 3.0 lb./ft ³ (Refer to FL1493) | United Coatings Diathon Base Coat or Diathon Roof Coating | United Coatings Diathon Roof Coating | -285.0 |
| C-18 | Structural concrete | Min. 1.5-inch EnergyGuard Polyiso Insulation | LRF-M | 1.5 - 6.0 in. thick BASF "ELASTOSPRAY 81285" applied at 2.85 lb./ft ³ or BASF "ELASTOSPRAY 81305" applied at 3.0 lb./ft ³ (Refer to FL1493) | United Coatings Diathon Base Coat or Diathon Roof Coating | United Coatings Diathon Roof Coating | -232.5 |
| C-19 | Structural concrete | Min. 1.5-inch EnergyGuard Polyiso Insulation | OB500 | 1.5 – 6.0 in. thick BASF "ELASTOSPRAY 81285" applied at 2.85 lb./ft ³ or BASF "ELASTOSPRAY 81305" applied at 3.0 lb./ft ³ (Refer to FL1493) | United Coatings Diathon Base Coat or Diathon Roof Coating | United Coatings Diathon Roof Coating | -285.0 |
| C-20 | Structural concrete | Min. 1.5-inch EnergyGuard Polyiso Insulation | BASF "ELASTOTITE G20140", full coverage at 1 gal/sq. (Refer to FL22254) | 1.5 - 6.0 in. thick BASF "ELASTOSPRAY 81285" applied at 2.85 lb./ft ³ or BASF "ELASTOSPRAY 81305" applied at 3.0 lb./ft ³ (Refer to FL1493) | United Coatings Diathon Base Coat or Diathon Roof Coating | United Coatings Diathon Roof Coating | -495.0 |

| | | | SVSTER | TABLE 3C: CONCRETE DECKS – NEW C // TYPE A: BONDED INSULATION, BONI | | | | | |
|--------|---------------------|---|------------|--|------------|------------------------------|--|---------------------------------|--------|
| | | | STSTEN | REFER TO NOTE 14 FOR | | | NOOFSTSTEIN | | |
| System | Deck | Base Insulation La | yer | Top Insulation Layer | | | Roof Cover (Note 12 & 13) | | MDP |
| No. | (Note 1) | Туре | Attach | Туре | Attach | Base Ply | Base Ply Treatment | LARS | (psf) |
| C-21 | Structural concrete | Min. 0.5-inch EnergyGuard Polyiso Insulation | GAF 2-Part | (Optional) Additional layer(s) base insulation | GAF 2-Part | SBS-CA1 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -60.0 |
| C-22 | Structural concrete | Min. 0.5-inch EnergyGuard Polyiso Insulation | GAF 2-Part | Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | GAF 2-Part | SBS-CA1, SBS- CA2, SBS-TA | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -127.5 |
| C-23 | Structural concrete | Min. 1-inch EnergyGuard Polyiso Insulation | GAF 2-Part | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | GAF 2-Part | SBS-CA1 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -172.5 |
| C-24 | Structural concrete | Min. 1-inch EnergyGuard Polyiso Insulation | GAF 2-Part | (Optional) Additional layer(s) base insulation | GAF 2-Part | SBS-CA2 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -222.5 |
| C-25 | Structural concrete | Min. 1-inch EnergyGuard Polyiso Insulation | GAF 2-Part | Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | GAF 2-Part | SBS-CA2, SBS- TA | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -222.5 |
| C-26 | Structural concrete | Min. 1.5-inch EnergyGuard Polyiso Insulation | GAF 2-Part | Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | GAF 2-Part | SBS-TA | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -335.0 |
| C-27 | Structural concrete | Min. 0.5-inch EnergyGuard Polyiso Insulation | LRF-M | (Optional) Additional layer(s) base insulation | LRF-M | SBS-CA1 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -60.0 |
| C-28 | Structural concrete | Min. 0.5-inch EnergyGuard Polyiso Insulation | LRF-M | Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | LRF-M | SBS-CA1 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -127.5 |

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6TH EDITION (2017) FBC NON-HVHZ EVALUATION GAF Liquid Applied Roof Systems; (800) 766-3411 Evaluation Report 10795.06.16-R4 for FL20663-R4 Revision 4: 04/12/2019 Appendix 1, Page 10 of 16



| | | | SYSTEN | TABLE 3C: CONCRETE DECKS – NEW C /I TYPE A: BONDED INSULATION, BOND | | | | | |
|--------|------------------------|---|-------------------------|--|--------|------------------------------|--|---------------------------------|--------|
| | | | 51512 | REFER TO NOTE 14 FOR N | | | | | |
| System | Deck | Base Insulation Lay | yer | Top Insulation Layer | | | Roof Cover (Note 12 & 13) | | MDP |
| No. | (Note 1) | Туре | Type Attach Type Attach | | Attach | Base Ply | Base Ply Treatment | LARS | (psf) |
| C-29 | Structural concrete | Min. 0.5-inch EnergyGuard Polyiso Insulation | LRF-M | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | LRF-M | SBS-CA1 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -172.5 |
| C-30 | Structural concrete | Min. 0.5-inch EnergyGuard Polyiso Insulation | LRF-M | (Optional) Additional layer(s) base insulation | LRF-M | SBS-CA2 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -222.5 |
| C-31 | Structural concrete | Min. 0.5-inch EnergyGuard Polyiso Insulation | LRF-M | Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | LRF-M | SBS-CA2 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -222.5 |
| C-32 | Structural concrete | Min. 0.5-inch EnergyGuard Polyiso Insulation | LRF-M | Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | LRF-M | SBS-TA | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -335.0 |
| C-33 | Structural concrete | Min. 0.5-inch EnergyGuard Polyiso Insulation | OB500 | (Optional) Additional layer(s) base insulation | OB500 | SBS-CA1 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -60.0 |
| C-34 | Structural concrete | Min. 0.5-inch EnergyGuard Polyiso Insulation | OB500 | Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | OB500 | SBS-CA1, SBS- CA2, SBS-TA | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -127.5 |
| C-35 | Structural concrete | Min. 1-inch EnergyGuard Polyiso Insulation | OB500 | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | OB500 | SBS-CA1 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -172.5 |
| C-36 | Structural concrete | Min. 1-inch EnergyGuard Polyiso Insulation | OB500 | (Optional) Additional layer(s) base insulation | OB500 | SBS-CA2 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -222.5 |
| C-37 | Structural concrete | Min. 1-inch EnergyGuard Polyiso Insulation | OB500 | Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | OB500 | SBS-CA2, SBS- TA | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -222.5 |
| C-38 | Structural concrete | Min. 1.5-inch EnergyGuard Polyiso Insulation | OB500 | Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | OB500 | SBS-TA | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -335.0 |

| | TABLE 3D: CONCRETE DECKS – NEW CONSTRUCTION or REROOF (TEAR-OFF) SYSTEM TYPE F: NON-INSULATED, LIQUID APPLIED ROOF SYSTEM | | | | | | | | |
|--------|--|--|----------|------------------------------|------------|--|--|--|--|
| System | Deals (Nata 4) | Primer | | MDP (psf) | | | | | |
| No. | Deck (Note 1) | Primer | Base Ply | LARS | wide (psi) | | | | |
| C-39 | Structural concrete | HydroStop BarrierGuard Waterproofing followed by SureBond Primer | None | HydroStop PremiumCoat System | -610.0 | | | | |



| | TABLE 4A: LIGHTWEIGHT CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE E: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, LIQUID APPLIED ROOF SYSTEM | | | | | | | | | | |
|--------|--|---|---|--|---|---|------------------------------------|-------|--|--|--|
| System | Deck | LWC (Note 11) | | Base Sheet | | Roof Cover (I | Note 13) | MDP | | | |
| No. | (Note 1) LWC (Note 11) | Туре | Fasten | Spacing | Base Ply Treatment | LARS | (psf) | | | | |
| LWC-1. | Min. 22 ga. type B, Grade 33 vented steel or structural concrete | Cellular lightweight concrete, min. 300 psi, min. 2-inch thick. Note: To qualify the LWIC under this assembly, a Drill-Tec Base Sheet Fastener (1.7) or Drill-Tec Base Sheet Fastener E (1.7) shall achieve an average withdrawal of 60 lbf when tested per TAS 105 or ANSI/SPRI FX-1 | GAFGLAS Stratavent Nailable Venting Base | Drill-Tec Base Sheet Fastener (1.7) or Drill- Tec Base Sheet Fastener E (1.7) | 7-inch o.c. at 4-inch wide laps and 7-inch o.c. at two (2) equally spaced, staggered center rows | (Optional) HydroStop PremiumCoat Base Sheet Lap Treatment | HydroStop PremiumCoat System | -45.0 | | | |

| | TABLE 4B: LIGHTWEIGHT CONCRETE DECKS – NEW CONSTRUCTION SYSTEM TYPE F: NON-INSULATED, LIQUID APPLIED ROOF SYSTEM | | | | | | | | | |
|---------------|---|---|---|---------------------------------|--------------|--|--|--|--|--|
| System No. | Deck (Note 1) | LWC (Note 11) | Primer (Note 13) | Roof Cover (Note 13) | MDP (psf) | | | | | |
| LWC-2. | Min. 22 ga. type B, Grade 33 vented steel | Mearlcrete, min. 300 psi, min. 2-inch thick | HydroStop BarrierGuard Waterproofing followed by SureBond Primer | HydroStop PremiumCoat System | -52.5 | | | | | |
| LWC-3. | Structural concrete | Cellular lightweight concrete, min. 210 psi, min. 2-inch thick. Note: To qualify the LWIC under this assembly, a Drill-Tec Base Sheet Fastener (1.7) or Drill-Tec Base Sheet Fastener E (1.7) shall achieve an average withdrawal of 89 lbf when tested per ANSI/SPRI FX-1 or a Minimum Characteristic Resistance Force (MCRF) of 78 lbf when tested per TAS 105. | HydroStop BarrierGuard Waterproofing followed by SureBond Primer | HydroStop PremiumCoat System | -502.5 | | | | | |



| | | | TABLE 5 | A: RECOVER APPLICATIONS | | | | |
|--------|---|--|------------|--|---------------|---|---------------------------------|--------|
| | - | SYSTEM TYPE | A: BONDED | INSULATION, LIQUID APPLIE | D ROOF SYSTEM | | | |
| System | Substrate | Base Insulation Layer | r | Top Insulation Lay | ver | Roof Cover (N | ote 13) | MDP |
| No. | (Notes 1 & 10) | Туре | Attach | Туре | Attach | Joint Treatment | LARS | (psf) |
| R-1 | Existing granule-surface BUR or granule-surface modified bitumen over concrete deck | (Optional) Min. 0.5-inch EnergyGuard Polyiso Insulation | GAF 2-Part | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | GAF 2-Part | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -75.0 |
| R-2 | Existing granule-surface BUR or granule-surface modified bitumen over concrete deck | Min. 0.5-inch EnergyGuard Polyiso Insulation | GAF 2-Part | Min. 0.25-inch Dens Deck or Dens Deck Prime | GAF 2-Part | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -135.0 |
| R-3 | Existing granule-surface BUR or granule-surface modified bitumen over concrete deck | Min. 1.5-inch EnergyGuard RA Polyiso Insulation | GAF 2-Part | (Optional) Additional layer(s) base insulation | GAF 2-Part | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -160.0 |
| R-4 | Existing granule-surface BUR or granule-surface modified bitumen over concrete deck | Min. 1-inch EnergyGuard Polyiso Insulation | GAF 2-Part | (Optional) Additional layer(s) base insulation | GAF 2-Part | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -222.5 |
| R-5 | Existing granule-surface BUR or granule-surface modified bitumen over concrete deck | Min. 1-inch EnergyGuard Polyiso Insulation | GAF 2-Part | Min. 0.25-inch Dens Deck Prime | GAF 2-Part | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -222.5 |
| R-6 | Existing granule-surface BUR or granule-surface modified bitumen over concrete deck | Min. 0.25-inch Dens Deck Prime | GAF 2-Part | None | N/A | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -257.5 |
| R-7 | Existing granule-surface BUR or granule-surface modified bitumen over concrete deck | Min. 1.5-inch ACFoam IV | GAF 2-Part | (Optional) Additional layer(s) base insulation | GAF 2-Part | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -257.5 |
| R-8 | Existing smooth- or granule-surface BUR or smooth- or granule-surface modified bitumen over concrete deck | (Optional) Min. 0.5-inch EnergyGuard Polyiso Insulation | LRF-M | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | LRF-M | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -75.0 |
| R-9 | Existing smooth- or granule-surface BUR or smooth- or granule-surface modified bitumen over concrete deck | (Optional) Min. 0.5-inch EnergyGuard Polyiso Insulation | LRF-M | Min. 0.25-inch Dens Deck | LRF-M | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -135.0 |
| R-10 | Existing smooth-surface BUR over concrete deck | Min. 0.5-inch EnergyGuard Polyiso Insulation | LRF-M | (Optional) Additional layer(s) base insulation | LRF-M | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -157.5 |
| R-11 | Existing smooth-surface BUR over concrete deck | (Optional) Min. 0.5-inch EnergyGuard Polyiso Insulation | LRF-M | Min. 0.25-inch Dens Deck Prime | LRF-M | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -157.5 |
| R-12 | Existing granule-surface BUR or smooth- or granule-surface modified bitumen over concrete deck | Min. 0.5-inch EnergyGuard Polyiso Insulation | LRF-M | (Optional) Additional layer(s) base insulation | LRF-M | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -222.5 |
| R-13 | Existing granule-surface BUR or smooth- or granule-surface modified bitumen over concrete deck | Min. 0.5-inch EnergyGuard Polyiso Insulation | LRF-M | Min. 0.25-inch Dens Deck Prime | LRF-M | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -225.0 |



| | TABLE 5A: RECOVER APPLICATIONS SYSTEM TYPE A: BONDED INSULATION, LIQUID APPLIED ROOF SYSTEM | | | | | | | | | | | |
|--------|---|--|--------|--|--------|---|---------------------------------|--------|--|--|--|--|
| System | Substrate | Base Insulation Layer | | Top Insulation Layer | | Roof Cover (N | MDP | | | | | |
| No. | (Notes 1 & 10) | Туре | Attach | Туре | Attach | Joint Treatment | LARS | (psf) | | | | |
| R-14 | Existing smooth-surface asphaltic roof cover or granule-surface BUR or granule-surface modified bitumen over concrete deck | (Optional) Min. 0.5-inch EnergyGuard Polyiso Insulation | OB500 | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | OB500 | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -75.0 | | | | |
| R-15 | Existing smooth-surface asphaltic roof cover | (Optional) Min. 0.5-inch EnergyGuard Polyiso Insulation | OB500 | Min. 0.25-inch Dens Deck or Dens Deck Prime | OB500 | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -120.0 | | | | |
| R-16 | Existing smooth-surface asphaltic roof cover | Min. 0.5-inch EnergyGuard Polyiso Insulation | OB500 | (Optional) Additional layer(s) base insulation | OB500 | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -120.0 | | | | |
| R-17 | Existing granule-surface BUR or granule-surface modified bitumen over concrete deck | Min. 0.5-inch EnergyGuard Polyiso Insulation | OB500 | (Optional) Additional layer(s) base insulation | OB500 | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -222.5 | | | | |
| R-18 | Existing granule-surface BUR or granule-surface modified bitumen over concrete deck | Min. 0.5-inch EnergyGuard Polyiso Insulation | OB500 | Min. 0.25-inch Dens Deck Prime | OB500 | HydroStop PremiumCoat Insulation Joint Treatment | HydroStop PremiumCoat System | -225.0 | | | | |

| | TABLE 5B: RECOVER APPLICATIONS | | | | | | | | | | |
|--------|---|---|------------|---|------------|------------------------------|--|---------------------------------|--------|--|--|
| System | Substrate | SYSTEN Base Insulation La | | NDED INSULATION, BONDE Top Insulation Laye | , | LIQUID APPLIED | ROOF SYSTEM Roof Cover (Note 12 & 13) | | MDP | | |
| No. | (Notes 1 & 10) | Туре | Attach | Туре | Attach | Base Ply | Base Ply Treatment | LARS | (psf) | | |
| R-19 | Existing granule-surface BUR or granule-surface modified bitumen over concrete deck | Min. 0.5-inch EnergyGuard Polyiso Insulation | GAF 2-Part | (Optional) Additional layer(s) base insulation | GAF 2-Part | SBS-CA1 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -60.0 | | |
| R-20 | Existing granule-surface BUR or granule-surface modified bitumen over concrete deck | (Optional) Min. 0.5-inch EnergyGuard Polyiso Insulation | GAF 2-Part | Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum- Fiber Roof Board | GAF 2-Part | SBS-CA1, SBS- CA2, SBS-TA | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -127.5 | | |
| R-21 | Existing granule-surface BUR or granule-surface modified bitumen over concrete deck | (Optional) Min. 1-inch EnergyGuard Polyiso Insulation | GAF 2-Part | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | GAF 2-Part | SBS-CA1 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -172.5 | | |
| R-22 | Existing granule-surface BUR or granule-surface modified bitumen over concrete deck | Min. 1-inch EnergyGuard Polyiso Insulation | GAF 2-Part | (Optional) Additional layer(s) base insulation | GAF 2-Part | SBS-CA2 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -222.5 | | |
| R-23 | Existing granule-surface BUR or granule-surface modified bitumen over concrete deck | (Optional) Min. 1-inch EnergyGuard Polyiso Insulation | GAF 2-Part | Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum- Fiber Roof Board | GAF 2-Part | SBS-CA2, SBS- TA | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -222.5 | | |
| R-24 | Existing granule-surface BUR or granule-surface modified bitumen over concrete deck | Min. 1.5-inch EnergyGuard Polyiso Insulation | GAF 2-Part | Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum- Fiber Roof Board | GAF 2-Part | SBS-TA | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -257.5 | | |



| | | | | TABLE 5B: RECOVER | | ONS | | | |
|--------|--|---|--------------|---|-------------|------------------------------|--|---------------------------------|--------|
| | | SYSTEM | И ТҮРЕ А: ВС | ONDED INSULATION, BONDE | D BASE PLY, | LIQUID APPLIED | ROOF SYSTEM | | 1 |
| System | Substrate | Base Insulation La | <u>ŕ</u> | Top Insulation Laye | 1 | | Roof Cover (Note 12 & 13) | | MDP |
| No. | (Notes 1 & 10) | Туре | Attach | Туре | Attach | Base Ply | Base Ply Treatment | LARS | (psf) |
| R-25 | Existing smooth- or granule- surface BUR or smooth- or granule-surface modified bitumen over concrete deck | Min. 0.5-inch EnergyGuard Polyiso Insulation | LRF-M | (Optional) Additional layer(s) base insulation | LRF-M | SBS-CA1 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -60.0 |
| R-26 | Existing smooth- or granule- surface BUR or smooth- or granule-surface modified bitumen over concrete deck | (Optional) Min. 0.5-inch EnergyGuard Polyiso Insulation | LRF-M | Min. 0.25-inch Dens Deck Primer | LRF-M | SBS-CA1 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -127.5 |
| R-27 | Existing smooth- or granule- surface BUR or smooth- or granule-surface modified bitumen over concrete deck | (Optional) Min. 0.5-inch EnergyGuard Polyiso Insulation | LRF-M | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | LRF-M | SBS-CA1 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -172.5 |
| R-28 | Existing smooth- or granule- surface BUR or smooth- or granule-surface modified bitumen over concrete deck | Min. 0.5-inch EnergyGuard Polyiso Insulation | LRF-M | (Optional) Additional layer(s) base insulation | LRF-M | SBS-CA2 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -222.5 |
| R-29 | Existing smooth- or granule- surface BUR or smooth- or granule-surface modified bitumen over concrete deck | (Optional) Min. 0.5-inch EnergyGuard Polyiso Insulation | LRF-M | Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum- Fiber Roof Board | LRF-M | SBS-CA2 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -222.5 |
| R-30 | Existing smooth- or granule- surface BUR or smooth- or granule-surface modified bitumen over concrete deck | (Optional) Min. 0.5-inch EnergyGuard Polyiso Insulation | LRF-M | Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum- Fiber Roof Board | LRF-M | SBS-TA | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -225.0 |
| R-31 | Existing smooth-surface asphaltic roof cover or granule-surface BUR or granule-surface modified bitumen over concrete deck | Min. 0.5-inch EnergyGuard Polyiso Insulation | OB500 | (Optional) Additional layer(s) base insulation | OB500 | SBS-CA1 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -60.0 |
| R-32 | Existing smooth-surface asphaltic roof cover | (Optional) Min. 0.5-inch EnergyGuard Polyiso Insulation | OB500 | Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum- Fiber Roof Board | OB500 | SBS-CA1, SBS- CA2, SBS-TA | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -120.0 |
| R-33 | Existing smooth-surface asphaltic roof cover | Min. 0.5-inch EnergyGuard Polyiso Insulation | OB500 | (Optional) Additional layer(s) base insulation | OB500 | SBS-CA2 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -120.0 |
| R-34 | Existing granule-surface BUR or granule-surface modified bitumen over concrete deck | Min. 0.5-inch EnergyGuard Polyiso Insulation | OB500. | Min. 0.25-inch Dens Deck Prime | OB500 | SBS-CA1 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -127.5 |
| R-35 | Existing granule-surface BUR or granule-surface modified bitumen over concrete deck | Min. 0.5-inch EnergyGuard Polyiso Insulation | OB500 | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | OB500 | SBS-CA1 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -172.5 |

NEMO ETC LLC

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| | TABLE 5B: RECOVER APPLICATIONS SYSTEM TYPE A: BONDED INSULATION, BONDED BASE PLY, LIQUID APPLIED ROOF SYSTEM | | | | | | | | | |
|--------|---|--|--------|---|--------|----------|--|---------------------------------|--------|--|
| System | Substrate | Base Insulation La | ayer | Top Insulation Laye | er | | Roof Cover (Note 12 & 13) | | MDP | |
| No. | (Notes 1 & 10) | Туре | Attach | Туре | Attach | Base Ply | Base Ply Treatment | LARS | (psf) | |
| R-36 | Existing granule-surface BUR or granule-surface modified bitumen over concrete deck | Min. 0.5-inch EnergyGuard Polyiso Insulation | OB500 | (Optional) Additional layer(s) base insulation | OB500 | SBS-CA2 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -222.5 | |
| R-37 | Existing granule-surface BUR or granule-surface modified bitumen over concrete deck | Min. 0.5-inch EnergyGuard Polyiso Insulation | OB500 | Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum- Fiber Roof Board | OB500 | SBS-CA2 | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -222.5 | |
| R-38 | Existing granule-surface BUR or granule-surface modified bitumen over concrete deck | Min. 0.5-inch EnergyGuard Polyiso Insulation | OB500 | Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum- Fiber Roof Board | OB500 | SBS-TA | (Optional) HydroStop PremiumCoat Base Ply Lap Treatment | HydroStop PremiumCoat System | -225.0 | |

| | TABLE 5C: RECOVER APPLICATIONS SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER | | | | | | | | | |
|------------|---|--|------------------------------|--------|--|--|--|--|--|--|
| System No. | o. Substrate (Notes 1 & 10) Primer Roof Cover (Note 13) M | | | | | | | | | |
| R-39 | Existing EPDM single ply over steel or concrete deck | Adhere-It II Primer or CleanAct Primer | HydroStop PremiumCoat System | -45.0 | | | | | | |
| R-40 | Existing smooth- or granule-surface BUR or SBS modified bitumen or granule- surface APP modified bitumen over steel or concrete deck | (Optional) HydroStop BarrierGuard Waterproofing at 0.5 gal/square. | HydroStop PremiumCoat System | -45.0 | | | | | | |
| R-41 | Existing spray polyurethane roof (SPUF) over concrete deck | None | HydroStop PremiumCoat System | -237.5 | | | | | | |