**Product Approval**
**USER**: Public User



| | |
|---|---|
| FL # | FL16733-R17 |
| Application Type | Revision |
| Code Version | 2020 |
| Application Status | Approved |
| Comments | |
| Archived | ☐ |
| Product Manufacturer | GAF |
| Address/Phone/Email | 1 Campus Drive<br>Parisppany, NJ 07054<br>(800) 766-3411<br>mstieh@gaf.com |
| Authorized Signature | Robert Nieminen<br>lreith@nemoetc.com |
| Technical Representative | William Broussard |
| Address/Phone/Email | 1 Campus Drive<br>Parsippany, NJ 07054<br>(800) 766-3411<br>TechnicalQuestionsGAF@gaf.com |
| Quality Assurance Representative | |
| Address/Phone/Email | |
| Category | Roofing |
| Subcategory | Built up Roofing |
| Compliance Method | Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer<br>☐ Evaluation Report - Hardcopy Received |
| 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 | 07/12/2025 |
| Validated By | John W. Knezevich, PE<br>☑ Validation Checklist - Hardcopy Received |
| Certificate of Independence | FL16733_R17_COI_2023_01_COI_NIEMINEN.pdf |

Referenced Standard and Year (of Standard)

| Standard | Year |
|---|---|
| ASTM D2178 | 2015 |
| ASTM D3909 | 2014 |
| ASTM D4601 | 2012 |
| ASTM D4897 | 2009 |
| ASTM D6163 | 2015 |
| ASTM D6164 | 2011 |
| ASTM D6222 | 2011 |
| TAS 114 | 2011 |

Equivalence of Product Standards
Certified By

Sections from the Code

| | |
|---|---|
| Product Approval Method | Method 1 Option D |
| Date Submitted | 06/21/2023 |
| Date Validated | 06/21/2023 |
| Date Pending FBC Approval | 06/24/2023 |
| Date Approved | 08/15/2023 |

**Summary of Products**

| FL # | Model, Number or Name | Description |
|---|---|---|
| 16733.1 | GAF Conventional Built-Up Roof Systems (HVHZ) | Asphalt built-up roof (BUR) systems for use in FBC HVHZ jurisdictions. |
| **Limits of Use**<br>**Approved for use in HVHZ:** Yes<br>**Approved for use outside HVHZ:** No<br>**Impact Resistant:** N/A<br>**Design Pressure:** +N/A/-457.5<br>**Other:** 1.) The design pressure herein pertains to one system. Refer to PEER Appendix for all systems and maximum design pressures. 2.) Refer to PEER Section 5 for Limits of Use. | | **Installation Instructions**<br>FL16733_R17_II_2023_06_20_FINAL_A1_PEER-GAF-003.B_HVHZ_FL16733-R17.pdf<br>Verified By: Robert Nieminen PE-59166<br>Created by Independent Third Party: Yes<br>**Evaluation Reports**<br>FL16733_R17_AE_2023_06_20_FINAL_PEER-GAF-003.B_HVHZ_FL16733-R17.pdf<br>Created by Independent Third Party: Yes |

Back Next

**NEMO|etc.**
*Certificate of Authorization #32455*
353 Christian Street, Unit #13
Oxford, CT 06478
(203) 262-9245

**ENGINEER** **EVALUATE** **TEST** **CONSULT**

# P.E. EVALUATION REPORT (PEER)

**GAF**
1 Campus Drive
Parsippany, NJ 07054
**(800) 766-3411**

**PEER-GAF-003.B**
**FL16733-R17 (HVHZ)**
**Date of Issuance: 12/18/2013**
**Revision 18: 06/20/2023**

**SCOPE:**
This P.E. Evaluation Report (henceforth 'PEER') is issued under **F.A.C. 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 (HVHZ) sections noted herein.

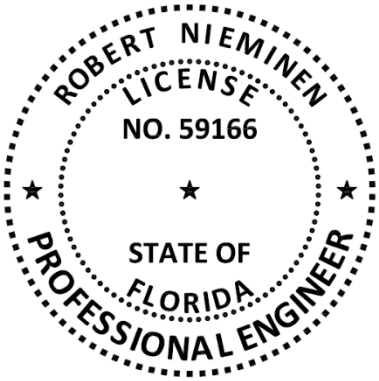
**DESCRIPTION: GAF Conventional Built-Up Roof Systems for use in FBC HVHZ jurisdictions**

**LABELING:** Labeling shall be in accordance with the requirements of the Accredited Quality Assurance Agency noted herein.
**CONTINUED COMPLIANCE:** This PEER 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 PEERs 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 PEER relative to updated Code requirements with each Code Cycle.
**ADVERTISEMENT:** The Florida Product Approval Number (FL#) preceded by the words "NEMO P.E. Evaluated" may be displayed in advertising literature. If any portion of the PEER is displayed, then it shall be done in its entirety.
**INSPECTION:** Upon request, a copy of this entire PEER 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 PEER consists of pages 1 through 5, plus a 34-page Appendix.

**Prepared by:** Digitally signed by Robert Nieminen
Date: 2023.06.20 '08:51:38 -04'00

This item has been digitally signed and sealed by Robert Nieminen, P.E.
Printed copies of this document are not considered signed and sealed, and the signature must be verified on any electronic copies.
Robert Nieminen, Florida P.E. 59166, FBC ANE1983
NEMO ETC, LLC, Florida CA #32455




**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 PEERs 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 PEER, 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:** Built-Up Roofing Systems
**Product Approval Method:** Method 1, Option D: Codified Material, Evaluation by Engineer
**Compliance Statement:** **GAF Conventional Built-Up Roof Systems**, as produced by **GAF**, have demonstrated compliance with the following sections of the **7th Edition (2020) Florida Building Code, HVHZ** through testing in accordance with the following Standards. Compliance is subject to the Installation Requirements and Limitations of Use set forth herein.

## 2. STANDARDS:

| SECTION | PROPERTY | STANDARD | YEAR |
|---|---|---|---|
| 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 Hail Damage | TAS 114, Appendix F | 2011 |
| TAS 110 | Susceptibility to Leakage | TAS 114, Appendix G | 2011 |
| TAS 110 | Material standard | ASTM D2178 | 2015 |
| TAS 110 | Material standard | ASTM D3909 | 2014 |
| TAS 110 | Material standard | ASTM D4601 | 2012 |
| TAS 110 | Material standard | ASTM D4897 | 2009 |
| TAS 110 | Material standard | ASTM D6163 | 2015 |
| TAS 110 | Material standard | ASTM D6164 | 2011 |
| TAS 110 | Material standard | ASTM D6222 | 2011 |

## 3. REFERENCES:

| ENTITY | EXAMINATION | REFERENCE | DATE |
|---|---|---|---|
| ERD (TST6049) | ASTM D6163 (GA) | G40630.01.14-1 | 01/06/14 |
| ERD (TST6049) | ASTM D6164 (GA) | G40630.01.14-2A | 01/07/14 |
| ERD (TST6049) | ASTM D6164 (GA) | G40630.01.14-2A-1-R1 | 01/07/14 |
| ERD (TST6049) | ASTM D6222 (IN) | G43180.03.14 | 03/03/14 |
| ERD (TST6049) | ASTM D3909 | SC6870.08.14 | 08/19/14 |
| ERD (TST6049) | ASTM D6163 (GA) | G46160.02.15-2D-1 | 02/09/16 |
| ERD (TST6049) | ASTM D6164 (GA) | GAF-SC13285.03.17-5 | 03/23/17 |
| ERD (TST6049) | ASTM D6164 (GA) | GAF-SC13105.03.17-R1 | 03/23/17 |
| NEMO (TST6049) | ASTM D2178 (GA) | 4S-GAF-18-001.01.19-1 | 01/02/19 |
| NEMO (TST6049) | ASTM D6222 (IN) | 4S-GAF-18-001.03.19.A | 03/13/19 |
| NEMO (TST6049) | ASTM D6164 (AR) | 4q-GAF-19-SSMBB-01A | 04/08/19 |
| NEMO (TST6049) | ASTM D6163 (AR) | 4q-GAF-19-SSMBB-02A | 04/08/19 |
| NEMO (TST6049) | ASTM D3909 | 4q-GAF-20-SSMBB-01.A | 03/04/21 |
| NEMO (TST6049) | ASTM D4601 (AL) | 4q-GAF-21-SSMBB-01.A | 09/07/21 |
| NEMO (TST6049) | ASTM D4897 (AL) | 4q-GAF-21-SSMBB-01.B | 09/07/21 |
| NEMO (TST6049) | ASTM D3909 | 4q-GAF-21-SSMBB-02.A | 12/02/21 |
| PRI (TST5878) | ASTM D2178 (AL) | MSA-039-02-02 | 09/27/17 |
| PRI (TST5878) | ASTM D2178 (AL) | MSA-039-02-01 | 09/27/17 |
| PRI (TST5878) | ASTM D6222 (CA-S) | 376T0143 | 08/23/21 |
| PRI (TST5878) | ASTM D6222 (CA-S) | 376T0144 | 08/26/21 |
| PRI (TST5878) | ASTM D4601 (GA) | 376T0229 | 12/20/21 |
| PRI (TST5878) | ASTM D4897 (GA) | 376T0227 | 12/20/21 |
| PRI (TST5878) | ASTM D4897 (GA) | 376T0228 | 12/20/21 |
| PRI (TST5878) | ASTM D4601 (GA) | 376T0240 | 12/21/21 |
| PRI (TST5878) | ASTM D2178 (CA-F) | 376T0275 | 01/31/22 |
| PRI (TST5878) | ASTM D3909 (GA) | 376T0272 | 02/03/22 |
| PRI (TST5878) | ASTM D4601 (CA-F) | 376T0276 | 02/03/22 |
| PRI (TST5878) | ASTM D6222 (GA) | 376T0274 | 05/04/22 |
| PRI (TST5878) | ASTM D6222 (GA) | 376T0273 | 08/29/22 |
| ACRC (TST4671) | TAS 114 | ACRC 11-048 | 08/10/11 |
| ACRC (TST4671) | TAS 114 | ACRC 11-049 | 08/10/11 |
| ACRC (TST4671) | TAS 114 | ACRC 11-053 | 08/12/11 |
| ERD (TST6049) | TAS 114 | 01880.09.03 | 09/10/03 |
| ERD (TST6049) | TAS 114 | GAF-SC16825.12.17-1 | 12/31/17 |
| FM (TST1867) | FM 4470 / 4450 | 2B8A4.AM | 07/02/97 |
| FM (TST1867) | FM 4470 / 4474 | 3043900 | 08/16/12 |
| FM (TST1867) | FM 4470 / 4474 | 3046388 | 09/24/12 |
| FM (TST1867) | FM 4470 / 4474 | 3041769 | 09/27/12 |
| FM (TST1867) | FM 4470 / 4474 | 797-09636-267 | 07/24/14 |
| FM (TST1867) | FM 4470 / 4474 | 797-09662-267 | 07/24/14 |
| FM (TST1867) | FM 4470 / 4474 | 797-09665-267 | 07/24/14 |
| FM (TST1867) | FM 4470 / 4474 | 797-09934-267 | 10/23/14 |
| FM (TST1867) | FM 4470 / 4474 | 797-09972-267 | 10/27/14 |
| FM (TST1867) | FM 4470 / 4474 | 797-09973-267 | 10/27/14 |
| FM (TST1867) | FM 4470 / 4474 | 797-10025-267 | 11/12/14 |
| FM (TST1867) | Criticality | 3056207 (released) | 02/09/16 |
| FM (TST1867) | FM 4470 / 4474 | 3056933 | 07/19/18 |
| FM (TST1867) | FM 4470 / 4474 | 3061784 | 07/25/18 |
| FM (TST1867) | FM 4470 / 4474 | 3055904 | 10/25/18 |
| FM (TST1867) | FM 4470 / 4474 | RR215191-267 | 11/07/18 |
| FM (TST1867) | Criticality | PR452971-R1 | 01/28/20 |
| FM (TST1867) | FM 4474 | PR455417 | 12/23/20 |
| FM (TST1867) | FM 4474 | PR458073 | 04/08/21 |
| FM (TST1867) | FM 4470 | RR227768 | 04/09/21 |
| FM (TST1867) | FM 4474 | PR457312 | 04/20/21 |
| FM (TST1867) | FM 4470 | PR459831 | 04/21/21 |
| FM (TST1867) | FM 4474 | PR456101 | 06/24/21 |
| FM (TST1867) | FM 4474 | PR460889 | 08/01/22 |
| FM (TST1867) | FM 4474 | PR460126 | 09/20/22 |
| FM (TST1867) | FM 4474 | PR464081 | 02/20/23 |
| IRT (TST7408) | TAS 114 | 00001 | 04/05/00 |
| IRT (TST7408) | TAS 114 | 00002 | 04/05/00 |
| IRT (TST7408) | TAS 114 | 01-0136 | 12/18/01 |
| IRT (TST7408) | TAS 114 | 02-005 | 01/18/02 |
| IRT (TST7408) | TAS 114 | 02-011 | 02/26/02 |
| IRT (TST7408) | TAS 114 | 02-014 | 03/22/02 |
| IRT (TST7408) | TAS 114 | 02-015 | 03/26/02 |
| IRT (TST7408) | TAS 114 | 02-026 | 07/26/02 |
| IRT (TST7408) | TAS 114 | 04-009 | 01/26/04 |
| NEMO (TST6049) | TAS 114 | 4L-GAF-18-002.05.19.A | 05/29/19 |

| Entity | Examination | Reference | Date | Entity | Examination | Reference | Date |
|---|---|---|---|---|---|---|---|
| FM (TST1867) | FM 4470 / 4450 | 3B9Q1.AM | 01/08/98 | PRI (TST5878) | TAS 114 | GAF-549-02-01 | 08/08/14 |
| FM (TST1867) | FM 4470 / 4450 | 0Y9Q5.AM | 04/01/98 | PRI (TST5878) | TAS 114 | GAF-549-02-02 | 08/08/14 |
| FM (TST1867) | FM 4470 / 4450 | 0D0A8.AM | 07/09/99 | PRI (TST5878) | TAS 114 | GAF-559-02-01 | 10/16/14 |
| FM (TST1867) | FM 4470 / 4450 | 3011140 | 08/14/01 | PRI (TST5878) | TAS 114 | GAF-559-02-04 | 10/16/14 |
| FM (TST1867) | FM 4470 / 4450 | 3014547 | 05/22/03 | PRI (TST5878) | TAS 114 | GAF-559-02-05 | 10/16/14 |
| FM (TST1867) | FM 4470 / 4474 | 3017250 | 04/05/04 | PRI (TST5878) | TAS 114 | GAF-559-02-06 | 10/16/14 |
| FM (TST1867) | FM 4470 / 4474 | 3020703 | 07/30/04 | PRI (TST5878) | TAS 114 | GAF-559-02-07 | 10/16/14 |
| FM (TST1867) | FM 4470 / 4474 | 3025524 | 03/13/06 | PRI (TST5878) | TAS 114 | GAF-559-02-08 | 10/16/14 |
| FM (TST1867) | FM 4470 / 4474 | 3023458 | 07/18/06 | PRI (TST5878) | TAS 114 | GAF-559-02-09 | 10/16/14 |
| FM (TST1867) | FM 4470 / 4474 | 3028478 | 01/05/07 | PRI (TST5878) | TAS 114 | GAF-559-02-11 | 10/16/14 |
| FM (TST1867) | FM 4470 / 4474 | 3029832 | 05/11/07 | PRI (TST5878) | TAS 114 | GAF-559-02-12 | 10/16/14 |
| FM (TST1867) | FM 4470 / 4474 | Approval Extension | 05/07/08 | PRI (TST5878) | TAS 114 | GAF-559-02-13 | 10/16/14 |
| FM (TST1867) | FM 4470 / 4474 | 797-05610-267 | 06/10/10 | PRI (TST5878) | TAS 114 | GAF-559-02-14 | 10/16/14 |
| FM (TST1867) | FM 4470 / 4474 | 797-05695-267 | 07/15/10 | PRI (TST5878) | TAS 114 | GAF-559-02-18 | 10/16/14 |
| FM (TST1867) | FM 4470 / 4474 | 797-05748-267 | 08/10/10 | PRI (TST5878) | Criticality | 376T0006-3 | 09/06/19 |
| FM (TST1867) | FM 4470 / 4474 | 797-05970-267 | 10/25/10 | PRI (TST5878) | Criticality | 376T0006-1 | 01/18/21 |
| FM (TST1867) | FM 4470 / 4474 | 797-05550-267 | 10/25/10 | UL (QUA9625) | Quality Control | Service Confirm | 07/12/22 |
| | | | | UL (QUA9625) | Quality Control | Florida BCIS | Current |

## 4. PRODUCT DESCRIPTION:

This PEER covers **GAF Built-Up Roof Systems (BUR)** installed in accordance with **GAF** published installation instructions and the Limitations of Use herein.

**TABLE 1: EVALUATED MEMBRANES**

| Type | Product | Material Standard | | Plant(s) |
|---|---|---|---|---|
| | | Reference | Type | |
| Base Sheet | GAFGLAS® #75 Base Sheet | ASTM D4601 | II | Fontana, CA<br>Savannah, GA<br>Tuscaloosa, AL |
| | Tri-Ply® #75 Base Sheet | ASTM D4601 | II | Fontana, CA<br>Savannah, GA<br>Tuscaloosa, AL |
| | GAFGLAS® #80 Ultima™ Base Sheet | ASTM D4601 | II | Savannah, GA<br>Tuscaloosa, AL |
| | GAFGLAS® Stratavent® Nailable Venting Base Sheet | ASTM D4897 | II | Savannah, GA<br>Tuscaloosa, AL |
| Venting Base Sheet | GAFGLAS® Stratavent® Perforated Venting Base Sheet | ASTM D4897 | II | Savannah, GA<br>Tuscaloosa, AL |
| Ply Sheet | GAFGLAS® Ply 4 | ASTM D2178 | IV | Fontana, CA<br>Savannah, GA |
| | GAFGLAS® Ply 4 M | ASTM D2178 | IV | Tuscaloosa, AL |
| | Tri-Ply® Ply 4 Ply Sheet | ASTM D2178 | IV | Fontana, CA<br>Savannah, GA |
| | GAFGLAS® FlexPly™ 6 | ASTM D2178 | VI | Savannah, GA |
| | GAFGLAS® FlexPly™ 6 M | ASTM D2178 | VI | Tuscaloosa, AL |
| Ply Sheet, Modified Bitumen | Ruberoid® 20 Smooth | ASTM D6163 | I | Arkadelphia, AR |
| | Ruberoid® Mop Smooth | ASTM D6164 | I | Savannah, GA |
| | Ruberoid® Mop Smooth 1.5 | ASTM D6164 | I | Savannah, GA |
| Cap Sheet | GAFGLAS® Mineral-Surfaced Cap Sheet | ASTM D3909 | N/A | Fontana, CA<br>Savannah, GA<br>Tuscaloosa, AL |
| | Tri-Ply® BUR Granule Cap Sheet | ASTM D3909 | N/A | Fontana, CA<br>Savannah, GA<br>Tuscaloosa, AL |
| | GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet | ASTM D3909 | N/A | Stockton, CA |

| TABLE 1: EVALUATED MEMBRANES | | | | |
|---|---|---|---|---|
| TYPE | PRODUCT | MATERIAL STANDARD | | PLANT(S) |
| | | REFERENCE | TYPE | |
| VAPOR BARRIER MEMBRANES | Ruberoid® 20 Smooth | ASTM D6163 | I | Arkadelphia, AR |
| | Ruberoid® HW 25 Smooth | ASTM D6163 | I | Savannah, GA |
| | Ruberoid® 30 Granule | ASTM D6163 | I | Savannah, GA |
| | Ruberoid® HW Smooth | ASTM D6164 | I | Savannah, GA |
| | Ruberoid® Mop Smooth | ASTM D6164 | I | Savannah, GA |
| | Ruberoid® Mop Smooth 1.5 | ASTM D6164 | I | Savannah, GA |
| | Liberty™ SBS Self-Adhering Cap Sheet | ASTM D6164 | I | Arkadelphia, AR<br>Mt. Vernon, IN<br>Savannah, GA |
| | Ruberoid® Torch Smooth | ASTM D6222 | I | Mt. Vernon, IN<br>Savannah, GA<br>Stockton, CA |
| | Ruberoid® Torch Granule | ASTM D6222 | I | Mt. Vernon, IN<br>Savannah, GA<br>Stockton, CA |

## 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 PEER, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.

5.2 This PEER 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 PEER 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 PEER 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 PEER.

## 6. INSTALLATION:

**GAF Conventional Built-Up Roof Systems** shall be installed in accordance with **GAF** published installation instructions, subject to the Limitations of Use herein.

## 7. BUILDING PERMIT REQUIREMENTS:

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

## 8. MANUFACTURING PLANTS:

Contact the named QA entity for manufacturing facilities covered by **F.A.C. Rule 61G20-3** QA requirements. Refer to Section 4 herein for products and production locations having met codified material standards.

## 9. QUALITY ASSURANCE ENTITY:

UL (QUA9625): (360) 817-5512; bsai.inspections@ul.com

***- THE 34-PAGES THAT FOLLOW FORM PART OF THIS PEER -***

## Appendix 1: Attachment Requirements for Wind Uplift Resistance

| Table | Deck | Application | Type | Description | Page |
|---|---|---|---|---|---|
| 1A | Wood | New, Reroof (Tear-Off) or Recover | B-1 | Mech. Attached Base Insulation, Bonded Top Insulation, Bonded Roof Cover | 6 |
| 1B | Wood | New or Reroof (Tear-Off) | B-3 | Mech. Attached Anchor Sheet (nails & caps), Bonded Insulation, Bonded Roof Cover | 6 |
| 1C | Wood | New, Reroof (Tear-Off) or Recover | B-3 | Mech. Attached Anchor Sheet (screws & plates), Bonded Insulation, Bonded Roof Cover | 7 |
| 1D | Wood | New, Reroof (Tear-Off) or Recover | C-1 | Mech. Attached Insulation, Bonded Roof Cover | 9 |
| 1E | Wood | New, Reroof (Tear-Off) or Recover | D-2 | Insulated, Mech. Attached Base Sheet, Bonded Roof Cover | 9 |
| 1F | Wood | New or Reroof (Tear-Off) | E-2 | Non-Insulated, Mech. Attached Base Sheet (nails & caps), Bonded Roof Cover | 10 |
| 1G | Wood | New, Reroof (Tear-Off) or Recover | E-2 | Non-Insulated, Mech. Attached Base Sheet (screws & plates), Bonded Roof Cover | 11 |
| 2A | Steel | New, Reroof (Tear-Off) | A-1 | Bonded Insulation, Bonded Roof Cover | 12 |
| 2B | Steel or Structural Concrete | New, Reroof (Tear-Off) or Recover | B-1 | Mech. Attached Base Insulation, Bonded Top Insulation, Bonded Roof Cover | 12 |
| 2C | Steel or Structural concrete | New, Reroof (Tear-Off), Recover | B-2 | Mech. Attached Thermal Barrier, Bonded Vapor Retarder, Bonded Insulation, Bonded Roof Cover | 14 |
| 2D | Steel or Structural Concrete | New, Reroof (Tear-Off) or Recover | C-1 | Mech. Attached Insulation, Bonded Roof Cover | 15 |
| 2E | Steel or Structural Concrete | New, Reroof (Tear-Off) or Recover | D-2 | Insulated, Mech. Attached Base Sheet, Bonded Roof Cover | 16 |
| 3A | Structural Concrete | New or Reroof (Tear-Off) | A-1 | Bonded Insulation, Bonded Roof Cover | 18 |
| 3B | Structural Concrete | New or Reroof (Tear-Off) | F | Non-Insulated, Bonded Roof Cover | 20 |
| 4A | Lightweight concrete | New or Reroof (Tear-Off) | A-1 | Bonded Insulation, Bonded Roof Cover | 21 |
| 4B | Lightweight concrete | New or Reroof (Tear-Off) | B-3 | Mech. Attached Anchor Sheet, Bonded Insulation, Bonded Roof Cover | 21 |
| 4C | Lightweight concrete | New, Reroof (Tear-Off) or Recover | D-2 | Insulated, Mech. Attached Base Sheet, Bonded Roof Cover | 23 |
| 4D | Lightweight concrete | New or Reroof (Tear-Off) | E-2 | Non-Insulated, Mech. Attached Base Sheet, Bonded Roof Cover | 24 |
| 4E | Lightweight concrete | New or Reroof (Tear-Off) | F | Non-Insulated, Bonded Roof Cover | 24 |
| 5A | Cementitious wood fiber | Reroof (Tear-Off) or Recover | B-1 | Mech. Attached Base Insulation, Bonded Top Insulation, Bonded Roof Cover | 25 |
| 5B | Cementitious wood fiber | Reroof (Tear-Off) or Recover | B-3 | Mech. Attached Anchor Sheet, Bonded Insulation, Bonded Roof Cover | 26 |
| 5C | Cementitious wood fiber | Reroof (Tear-Off) or Recover | C-1 | Mech. Attached Insulation, Bonded Roof Cover | 26 |
| 5D | Cementitious wood fiber | Reroof (Tear-Off) or Recover | D-2 | Insulated, Mech. Attached Base Sheet, Bonded Roof Cover | 27 |
| 5E | Cementitious wood fiber | Reroof (Tear-Off) or Recover | E-2 | Non-Insulated, Mech. Attached Base Sheet, Bonded Roof Cover | 27 |
| 6A | Existing gypsum | Reroof (Tear-Off) | B-1 | Mech. Attached Base Insulation, Bonded Top Insulation, Bonded Roof Cover | 28 |
| 6B | Existing gypsum | Reroof (Tear-Off) | B-3 | Mech. Attached Anchor Sheet, Bonded Insulation, Bonded Roof Cover | 29 |
| 6C | Existing gypsum | Reroof (Tear-Off) | C-1 | Mech. Attached Insulation, Bonded Roof Cover | 30 |
| 6D | Existing gypsum | Reroof (Tear-Off) | D-2 | Insulated, Mech. Attached Base Sheet, Bonded Roof Cover | 31 |
| 6E | Existing gypsum | Reroof (Tear-Off) | E-2 | Non-Insulated, Mech. Attached Base Sheet, Bonded Roof Cover | 31 |
| 7A | Various | Recover | A-1 | Bonded Insulation, Bonded Roof Cover | 32 |
| 7B | Various | Recover | F | Non-Insulated, Bonded Roof Cover | 34 |

**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 HVHZ requirements to the satisfaction of the Authority Having Jurisdiction. Deck-attachment details pertain to 'as-tested' conditions under Testing Application Standard TAS 114, Appendix J.

2 Unless otherwise noted, fasteners and stress plates shall be as follows. Fastener shall be of sufficient length for the following engagements:

| FASTENER/PLATE OPTIONS | | | |
|---|---|---|---|
| **DECK TYPE** | **BY** | **PARTS** | **MINIMUM ENGAGEMENT** |
| Wood | GAF | Drill-Tec #12 Fastener, Drill-Tec #12 DP Fastener, Drill-Tec #12 DPH Fastener, Drill-Tec #14 Fastener or Drill-Tec #14 HD Fastener with Drill-Tec 3" Standard Steel Plate, Drill-Tec 3" Steel Plate or Drill-Tec AccuTrac Flat Plate, Drill-Tec AccuTrac Recessed Plate (insulation only), Drill-Tec 3" Flat Steel Plate or Drill-Tec 3" Recessed Steel Plate; Drill-Tec ASAP 3S; Drill-Tec Heavy Duty ASAP Roofing Fastener Assembled with a 3" Metal Plate; Drill-Tec 3" ASAP Flat or Drill-Tec 3" ASAP Recessed | Minimum ¾-inch plywood penetration or minimum 1-inch wood plank embedment |
| Steel | GAF | Drill-Tec #12 Fastener, Drill-Tec #12 DP Fastener, Drill-Tec #12 DPH Fastener, Drill-Tec #14 Fastener, Drill-Tec #14 HD Fastener, Drill-Tec XHD Fastener or Drill-Tec #15 EHD Fastener with Drill-Tec 3" Standard Steel Plate, Drill-Tec 3" Steel Plate or Drill-Tec AccuTrac Flat Plate or Drill-Tec AccuTrac Recessed Plate (insulation only), Drill-Tec 3" Flat Steel Plate or Drill-Tec 3" Recessed Steel Plate; Drill-Tec ASAP 3S; Drill-Tec Heavy Duty ASAP Roofing Fastener Assembled with a 3" Metal Plate; Drill-Tec Extra Heavy Duty ASAP Roofing Fastener – Insulation; ; Drill-Tec 3" ASAP Flat or Drill-Tec 3" ASAP Recessed | Minimum ¾-inch steel penetration and engage the top flute of the steel deck |
| | Note: | Unless otherwise noted, Drill Tec #12 DF Fastener or Drill Tec #14 DF Fastener with Drill Tec 3" DF Steel Insulation Plate may be used in place of Drill-Tec #12 Fastener or Drill-Tec #14 Fastener with Drill-Tec 3" Standard Steel Plate when used to secure DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board or SECUROCK Ultralight Coated Glass-Mat Roof Board to steel deck, up to a maximum allowable design pressure (MDP) of -120.0 psf. | |
| | Note: | Unless otherwise noted, Drill Tec #12 DF Fastener or Drill Tec #14 DF Fastener with Drill Tec 3" DF Steel Insulation Plate may be used in place of Drill-Tec #12 Fastener or Drill-Tec #14 Fastener with Drill-Tec 3" Standard Steel Plate when used to secure min. 0.5-inch thick Structodek High Density Fiberboard Roof Insulation, 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) or min. 1.5-inch EnergyGuard POLYISO INSULATION or EnergyGuard Ultra Polyiso Insulation to steel deck. | |
| | Note: | Unless otherwise noted, Drill Tec #12 DF Fastener or Drill Tec #14 DF Fastener with Drill Tec 3" DF Steel Insulation Plate may be used in place of Drill-Tec #12 Fastener or Drill-Tec #14 Fastener with Drill-Tec 3" Standard Steel Plate when used to secure GAFGLAS #75 Base Sheet to steel deck | |
| Structural Concrete | GAF | Drill-Tec #14 Fastener, Drill-Tec #14 HD Fastener or Drill-Tec CD-10 with Drill-Tec 3" Standard Steel Plate, Drill-Tec 3" Steel Plate or Drill-Tec AccuTrac Flat Plate or Drill-Tec AccuTrac Recessed Plate (insulation only), Drill-Tec 3" Flat Steel Plate or Drill-Tec 3" Recessed Steel Plate; Drill-Tec Heavy Duty ASAP Roofing Fastener Assembled with a 3" Metal Plate or Drill-Tec 3" ASAP Flat (#14 only) | Minimum 1.25-inch embedment. Fastener installed with a pilot hole in accordance with the fastener manufacturer's published installation instructions |
| | Note: | Unless otherwise noted, Drill Tec #14 DF Fastener with Drill Tec 3" DF Steel Insulation Plate may be used in place of Drill-Tec #14 Fastener with Drill-Tec 3" Standard Steel Plate when used to secure DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board or SECUROCK Ultralight Coated Glass-Mat Roof Board to structural concrete deck, up to a maximum allowable design pressure (MDP) of -120.0 psf. | |
| | Note: | Unless otherwise noted, Drill Tec #14 DF Fastener with Drill Tec 3" DF Steel Insulation Plate may be used in place of Drill-Tec #14 Fastener with Drill-Tec 3" Standard Steel Plate when used to secure min. 0.5-inch thick Structodek High Density Fiberboard Roof Insulation, 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) or min. 1.5-inch EnergyGuard POLYISO INSULATION or EnergyGuard Ultra Polyiso Insulation to structural concrete deck. | |

3 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 Minimum 200 psi, minimum 2-inch thick FBC HVHZ Approved lightweight insulating concrete may be substituted for, or installed below, rigid insulation board for System Types B-1, C-1, C-2, D-1 or D-2, whereby fasteners are installed through the lightweight insulating concrete to engage the structural deck. The structural deck shall be of equal or greater type, thickness and strength to the steel and structural concrete deck listings. Roof decks and structural members shall be in accordance with FBC requirements to the satisfaction of the Authority Having Jurisdiction. This is a wind uplift resistance allowance and does not purport to address non-wind-uplift-related issues, such as deck venting or moisture levels within the LWIC and the potential effect on overlying components. 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 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.
When multiple layers(s) of insulation and/or coverboard are installed in ribbon-applied adhesive, board joints shall be staggered.
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.

| Insulation Adhesive References | | | | |
|---|---|---|---|---|
| By | Adhesive | Reference | FBC File or NOA | Minimum Rate |
| GAF | GAF LRF Adhesive M | 'LRF-M' | NOA 18-0521.05 | Continuous 0.75 to 1-inch ribbons, 12-inch o.c. |
| GAF | GAF LRF Adhesive M Canister | 'LRF-M Canister' | N/A | Continuous 1 to 1.5-inch ribbons, 12-inch o.c. |
| GAF | GAF LRF Adhesive XF | 'LRF-XF' | N/A | Continuous 0.75 to 1-inch ribbons, 12-inch o.c. |
| H.B. Fuller Company | Millennium One Step Foamable Adhesive | 'M-OSFA' | NOA 18-1109.02 | Continuous 0.25 to 0.5-inch wide ribbons, 12-inch o.c. |
| OMG, Inc. | OlyBond 500 Adhesive Fastener | 'OB500' | NOA 22-0519.04 | Continuous 0.75-inch wide ribbons, 12-inch o.c. (PaceCart, SpotShot or Canister) |
| Generic, ASTM D312, Type IV | hot asphalt | N/A | N/A | Full coverage at 25-30 lbs/square |

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.

| MDP Limitations for Tapered Polyisocyanurate Insulations | | | | |
|---|---|---|---|---|
| Adhesive | Insulation | | Min. Tapered Thickness (in) | MDP (psf) |
| | Listed Product | FBC File or NOA | | |
| LRF-M | EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation | NOA 22-1202.06 | 0.5 | -232.5 |
| LRF-XF | EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation | NOA 22-1202.06 | 0.5 | -292.5 |
| LRF-XF | EnergyGuard RA | NOA 23-0130.03 | 0.5 | -487.5 |
| M-OSFA | Any EnergyGuard polyisocyanurate listed with adhesive herein | various | 0.5 | -157.5 |
| OB500 | EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation | NOA 22-1202.06 | 0.5 | -292.5 |
| OB500 | EnergyGuard RH | NOA 19-1017.09 | 0.5 | -315.0 |
| OB500 | EnergyGuard RN | NOA 18-1126.10 | 0.5 | -315.0 |
| OB500 | EnergyGuard RA | NOA 23-0130.03 | 0.5 | -487.5 |
| Hot asphalt | Any EnergyGuard polyisocyanurate listed with adhesive herein | Various | 0.5 | -240.0 |

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 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 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.

11 For mechanically attached components over existing decks, fasteners shall be tested in the existing deck for withdrawal resistance in accordance with Testing Application Standard TAS 105. A qualified design professional shall review the data for comparison to the minimum requirements for the system. Should the fastener resistance be less than that required, a revised fastener spacing – prepared, signed and sealed by a qualified design professional in accordance with Roofing Application Standard RAS 117 or Roofing Application Standard RAS 137 – may be submitted to the Building Official for review and acceptance.

12 Refer to FBC HVHZ 1521 for requirements and limitations regarding recover installations. 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 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 in accordance with Testing Application Standard TAS 124.

13 For Structural Concrete Deck or Recover Applications using System Type C-1 the base insulation layer is optional and for System Type C-2, D-1 or D-2, the insulation is optional. Alternatively, an FBC HVHZ 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)**. The separator component shall be documented as meeting FBC HVHZ 1516 and, for foam plastic, FBC Chapter 26, when installed with the roof cover in Recover applications.

14 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 FBC HVHZ 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.

15 For bonded membrane applications, unless otherwise noted, refer to the following.

| Membrane / Adhesive Combinations | | |
|---|---|---|
| **Reference** | **Type** | **Application** |
| Base Sheet (BS) | Optional base sheet of GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Ply 4, GAFGLAS Ply 4 M, Tri-Ply Ply 4 Ply Sheet or GAFGLAS FlexPly 6, GAFGLAS FlexPly 6 M | Hot asphalt |
| Venting Base Sheet (V-BS) | GAFGLAS Stratavent Perforated Venting Base Sheet | Loose-laid |
| Ply Sheet (PS) | Two or more plies of GAFGLAS Ply 4, GAFGLAS Ply 4 M, Tri-Ply Ply 4 Ply Sheet or GAFGLAS FlexPly 6, GAFGLAS FlexPly 6 M | Hot asphalt |
| Ply Sheet, Modified Bitumen (PS-MB) | One or two plies of GAFGLAS #80 Ultima Base Sheet, Ruberoid 20 Smooth, Ruberoid Mop Smooth or Ruberoid Mop Smooth 1.5 | Hot asphalt |
| Cap Sheet (CS) | Optional cap sheet of GAFGLAS Mineral-Surfaced Cap Sheet, Tri-Ply BUR Granule Cap Sheet or GAFGLAS EnergyCap Mineral-Surfaced Cap Sheet | Hot asphalt |

*Note: Systems without a cap sheet shall be surfaced in accordance with GAF requirements, meeting the fire resistance requirements of FBC Section 1516, and in accordance with FBC Section 1519.12.*

16 Vapor barrier options for use over **structural concrete deck** followed by bonded insulation carry the following Maximum Design Pressure (MDP) limitations. The lesser of the MDP listings below vs. that for the selected assembly applies.

| Vapor Barrier Options; Structural Concrete Deck; Followed by Adhesive-Applied Insulation | | | | | |
|---|---|---|---|---|---|
| **Option #** | **Primer** | **Vapor Barrier (Note 15)** | | **Insulation Adhesive per Table 3A** | **MDP (psf)** |
| | | **Type** | **Application** | | |
| C-VB-1. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | Ruberoid Torch Granule | Torch-applied | Hot asphalt | -225.0 |
| C-VB-2. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | BP-AA | Hot asphalt applied | Hot asphalt | -360.0 |
| C-VB-3. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | One or two plies, GAFGLAS Ply 4, GAFGLAS Ply 4 M, Tri-Ply Ply 4 Ply Sheet, GAFGLAS FlexPly 6 or GAFGLAS FlexPly 6 M or SBS-AA | Hot asphalt applied | Hot asphalt | -495.0 |
| C-VB-4. | None | GAF SA Vapor Retarder XL | Self-adhering | LRF-M, 12-inch o.c. | -112.5 |
| C-VB-5. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | SBS-TA | Torch-applied | LRF-M, 12-inch o.c. | -180.0 |
| C-VB-6. | GAF SA Primer | GAF SA Vapor Retarder | Self-adhering | LRF-M, 12-inch o.c. | -202.5 |
| C-VB-7. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | BP-AA or one or two plies GAFGLAS Ply 4, GAFGLAS Ply 4 M, GAFGLAS FlexPly 6 or GAFGLAS Flex Ply 6 M or SBS-AA | Hot asphalt applied | LRF-M, 12-inch o.c. | -495.0 |
| C-VB-8. | None | GAF SA Vapor Retarder XL | Self-adhering | LRF-XF 12-inch o.c. | -112.5 |
| C-VB-9. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | Ruberoid Torch Granule | Torch-applied | LRF-XF, 12-inch o.c. | -169.0 |
| C-VB-10. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | SBS-TA | Torch-applied | LRF-XF, 12-inch o.c. | -180.0 |

| Vapor Barrier Options; Structural Concrete Deck; Followed by Adhesive-Applied Insulation | | | | | |
|---|---|---|---|---|---|
| Option # | Primer | Vapor Barrier (Note 15) | | Insulation Adhesive per Table 3A | MDP (psf) |
| | | Type | Application | | |
| C-VB-11. | GAF SA Primer | GAF SA Vapor Retarder | Self-adhering | LRF-XF, 12-inch o.c. | -202.5 |
| C-VB-12. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | SBS-SA | Self-adhering | LRF-XF, 12-inch o.c. | -250.0 |
| C-VB-13. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | BP-AA or one or two plies GAFGLAS Ply 4, GAFGLAS Ply 4 M, GAFGLAS FlexPly 6 or GAFGLAS Flex Ply 6 M or SBS-AA | Hot asphalt applied | LRF-XF, 12-inch o.c. | -262.5 |
| C-VB-14. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | Ruberoid 30 | Hot asphalt applied | LRF-XF, 12-inch o.c. | -270.0 |
| C-VB-15. | None | GAF SA Vapor Retarder XL | Self-adhering | OlyBond 500, 12-inch o.c. | -127.5 |
| C-VB-16. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | Ruberoid Torch Smooth | Torch-applied | OB500, 12-inch o.c. | -165.0 |
| C-VB-17. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | Ruberoid HW 25 Smooth | Torch-applied | OB500, 12-inch o.c. | -180.0 |
| C-VB-18. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | SBS-SA | Self-adhering | OB500, 12-inch o.c. | -187.5 |
| C-VB-19. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | Ruberoid 20 Smooth | Matrix 102 SBS Membrane Adhesive at 1.5 gal/square | OB500, 12-inch o.c. | -202.5 |
| C-VB-20. | GAF SA Primer | GAF SA Vapor Retarder | Self-adhering | OB500, 12-inch o.c. | -202.5 |
| C-VB-21. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | Ruberoid Torch Granule | Torch-applied | OB500, 12-inch o.c. | -225.0 |
| C-VB-22. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | Ruberoid HW Smooth | Torch-applied | OB500, 12-inch o.c. | -232.5 |
| C-VB-23. | Matrix 307 Premium Asphalt Primer or ASTM D41 primer | BP-AA or one or two plies GAFGLAS Ply 4, GAFGLAS Ply 4 M, GAFGLAS FlexPly 6 or GAFGLAS Flex Ply 6 M or SBS-AA | Hot asphalt applied | OB500, 12-inch o.c. | -352.5 |

17 Fire barriers of FireOut™ Fire Barrier Coating, VersaShield® Solo™ Fire-Resistant Slip Sheet, SECUROCK Gypsum-Fiber Roof Board or SECUROCK Glass-Mat Roof Board are optional in all wood deck assemblies where overlying components are mechanically fastened.

18 For System Types B-1, B-2, C-1, C-2, D-1 or Type D-2, GAF SA Vapor Retarder or GAF SA Vapor Retarder XL may be installed atop the roof deck, or to a loose-laid thermal barrier of DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board, prior to installation of the insulation and roof cover. When adhering GAF SA Vapor Retarder to structural concrete, the substrate shall be primed with GAF SA Primer. When adhering GAF SA Vapor Retarder to DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board, the substrate shall be primed with GAF SA Primer or Matrix 307 Premium Asphalt Primer. Refer to FM Loss Prevention Data Sheet 1-29 for design and installation limitations.

19 The following products are interchangeable within the scope of this Evaluation Report:

| Acceptable Alternates | | | | |
|---|---|---|---|---|
| Sub-Category | Manufacturer | FBC File or NOA | Listed Product Herein | Alternate |
| Roofing Insulation | GAF | NOA 22-1202.06 | EnergyGuard Polyiso Insulation | EnergyGuard NH Polyiso Insulation |
| | | | EnergyGuard Ultra Polyiso Insulation | EnergyGuard NH Ultra Polyiso Insulation |
| | Georgia-Pacific Gypsum, LLC | NOA 21-1229.05 | DensDeck Prime | DensDeck StormX Prime Roof Board |
| Vapor Barrier | GAF | N/A | GAF SA Vapor Retarder XL | GAF SA Vapor Retarder XL40 |

20 "MDP" = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads. Refer to FBC (HVHZ) 1620 and Roofing Application Standard RAS 128 for determination of design wind loads. (Notes 9 and 10)

| TABLE 1A: WOOD DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER<br>SYSTEM TYPE B-1: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION LAYER, BONDED ROOF COVER | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| System No. | Deck (Note 1) | Base Insulation Layer | | | Top Insulation Layer | | Roof Cover (Note 15) | MDP (psf) |
| | | Type | Fastener (Note 11) | Attach | Type | Attach (Notes 6,7,8) | | |
| W-1. | Min. 19/32-inch plywood or wood plank | One or more layers Min. 1.3-inch EnergyGuard RA or RN | Note 2 | 1 per 3.0 ft² | Optional one or more layers min. 1.3-inch EnergyGuard RA or RN followed by min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) or Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation | hot asphalt | GAF BUR. Note 15. | -45.0* |
| W-2. | Min. 19/32-inch plywood or wood plank | One or more layers Min. 1.5-inch EnergyGuard Composite | Note 2 | 1 per 3.0 ft² | Optional one or more layers min. 1.3-inch EnergyGuard RA or RN followed by min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) or Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation | hot asphalt | GAF BUR. Note 15. | -45.0* |
| W-3. | Min. 19/32-inch plywood or wood plank | One or more layers Min. 1-inch Structodek High Density Fiberboard Roof Insulation | Note 2 | 1 per 4.0 ft² | Optional one or more layers min. 1.3-inch EnergyGuard RA or RN followed by min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) or Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation | hot asphalt | GAF BUR. Note 15. | -45.0* |

| TABLE 1B: WOOD DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)<br>SYSTEM TYPE B-3: MECHANICALLY ATTACHED ANCHOR SHEET (NAILS & CAPS), BONDED INSULATION, BONDED ROOF COVER | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| System No. | Deck (Note 1) | Anchor Sheet | | | Insulation | | Roof Cover (Note 15) | MDP (psf) |
| | | Type | Fastener (Note 11) | Attach | Type | Attach (Notes 6,7,8) | | |
| CONVENTIONAL SYSTEMS: | | | | | | | | |
| W-4. | Min. 19/32-inch plywood or wood plank; 24" span, 8d common nails 6" o.c. | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, GAFGLAS Ply 4, GAFGLAS Ply 4 M, Tri-Ply Ply 4 Ply Sheet, GAFGLAS FlexPly 6, GAFGLAS FlexPly 6 M, Ruberoid 20 Smooth | 32 ga., 1-5/8-inch diameter tin caps with 11 ga. annular ring shank nails | 9-inch o.c. at the 4-inch lap and 12-inch o.c. in two staggered center rows | One or more layers, any combination: Min. 1-inch EnergyGuard RA or RN, Min. 1.5-inch EnergyGuard Composite, Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or EnergyGuard Perlite Recover Board, Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) | hot asphalt | GAF BUR. Note 15. | -45.0 |
| W-5. | Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c. | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth | 32 ga., 1-5/8-inch diameter tin caps with 12 ga. annular ring shank nails | 8-inch o.c. at the 4-inch lap and 8-inch o.c. in two staggered center rows | Min. 1-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation or EnergyGuard RH Polyiso followed by Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board, Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or EnergyGuard Perlite Recover Board or Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) | hot asphalt | GAF BUR. Note 15. | -52.5 |

| TABLE 1B: WOOD DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)<br>SYSTEM TYPE B-3: MECHANICALLY ATTACHED ANCHOR SHEET (NAILS & CAPS), BONDED INSULATION, BONDED ROOF COVER | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| System No. | Deck (Note 1) | Anchor Sheet | | | Insulation | | Roof Cover (Note 15) | MDP (psf) |
| | | Type | Fastener (Note 11) | Attach | Type | Attach (Notes 6,7,8) | | |
| W-6. | Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c. | GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth | FBC (HVHZ) approved 1.25-inch annular ring shank nails and inverted Drill-Tec 3-inch Galvalume Plate | 9-inch o.c. at the 4-inch lap and 9-inch o.c. in two staggered center rows | One or more layers, any combination: Min. 1-inch EnergyGuard RA or RN, Min. 1.5-inch EnergyGuard Composite, Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or EnergyGuard Perlite Recover Board, Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) | hot asphalt | GAF BUR. Note 15. | -60.0 |
| **VENTING SYSTEMS:** | | | | | | | | |
| W-7. | Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c. | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth | 32 ga., 1-5/8-inch diameter tin caps with 12 ga. annular ring shank nails | 8-inch o.c. at the 4-inch lap and 8-inch o.c. in two staggered center rows | Min. 1-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation or EnergyGuard RH Polyiso | hot asphalt | V-BS followed by GAF BUR Note 15. | -52.5 |

| TABLE 1C: WOOD DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER<br>SYSTEM TYPE B-3: MECHANICALLY ATTACHED ANCHOR SHEET (SCREWS & PLATES), BONDED INSULATION, BONDED ROOF COVER | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| System No. | Deck (Note 1) | Anchor Sheet | | | Insulation | | Roof Cover (Note 15) | MDP (psf) |
| | | Type | Fastener (Note 11) | Attach | Type | Attach (Notes 6,7,8) | | |
| **CONVENTIONAL SYSTEMS:** | | | | | | | | |
| W-8. | Min. 19/32-inch plywood or wood plank; 24" span, 8d common nails 6" o.c. | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, GAFGLAS Ply 4, GAFGLAS Ply 4 M, Tri-Ply Ply 4 Ply Sheet, GAFGLAS FlexPly 6, GAFGLAS FlexPly 6 M, Ruberoid 20 Smooth | Note 2 | 12-inch o.c. at the 2-inch lap and 12-inch o.c. in two center staggered center rows | One or more layers, any combination: Min. 1-inch EnergyGuard RA or RN, Min. 1.5-inch EnergyGuard Composite, Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or EnergyGuard Perlite Recover Board, Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) | hot asphalt | GAF BUR. Note 15. | -45.0 |
| W-9. | Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c. | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth | Note 2 (#14 ONLY) | 16-inch o.c. at the min. 4-inch lap and 16-inch o.c. in two, equally spaced, staggered center rows | Min. 1-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation or EnergyGuard RH Polyiso followed by Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board, Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or EnergyGuard Perlite Recover Board or Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) | hot asphalt | GAF BUR. Note 15. | -52.5 |

| TABLE 1C: WOOD DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER<br>SYSTEM TYPE B-3: MECHANICALLY ATTACHED ANCHOR SHEET (SCREWS & PLATES), BONDED INSULATION, BONDED ROOF COVER | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| System No. | Deck (Note 1) | Anchor Sheet | | | Insulation | | Roof Cover (Note 15) | MDP (psf) |
| | | Type | Fastener (Note 11) | Attach | Type | Attach (Notes 6,7,8) | | |
| W-10. | Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c. | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth | Note 2 (#14 ONLY) | 12-inch o.c. at the min. 4-inch lap and 12-inch o.c. in two, equally spaced, staggered center rows | Min. 1-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation or EnergyGuard RH Polyiso followed by Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board, Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or EnergyGuard Perlite Recover Board or Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) | hot asphalt | GAF BUR. Note 15. | -60.0 |
| W-11. | Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c. | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth | Note 2 | 12-inch o.c. at the 2-inch lap and 12-inch o.c. in three staggered center rows | One or more layers, any combination: Min. 1-inch EnergyGuard RA or RN, Min. 1.5-inch EnergyGuard Composite, Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or EnergyGuard Perlite Recover Board, Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) | hot asphalt | GAF BUR. Note 15. | -60.0 |
| W-12. | Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c. | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth | Note 2 (#14 ONLY) | 8-inch o.c. at the 4-inch lap and 8-inch o.c. in three staggered center rows | Min. 1-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation or EnergyGuard RH Polyiso followed by Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board, Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or EnergyGuard Perlite Recover Board or Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) | hot asphalt | GAF BUR. Note 15. | -75.0* |
| **VENTING SYSTEMS:** | | | | | | | | |
| W-13. | Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c. | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth | Note 2 (#14 ONLY) | 16-inch o.c. at the min. 4-inch lap and 16-inch o.c. in two, equally spaced, staggered center rows | Min. 1-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation or EnergyGuard RH Polyiso | hot asphalt | V-BS followed by GAF BUR Note 15. | -52.5 |
| W-14. | Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c. | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth | Note 2 (#14 ONLY) | 12-inch o.c. at the min. 4-inch lap and 12-inch o.c. in two, equally spaced, staggered center rows | Min. 1-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation or EnergyGuard RH Polyiso | hot asphalt | V-BS followed by GAF BUR Note 15. | -60.0 |
| W-15. | Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c. | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth | Note 2 (#14 ONLY) | 8-inch o.c. at the 4-inch lap and 8-inch o.c. in three staggered center rows | Min. 1-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation or EnergyGuard RH Polyiso | hot asphalt | V-BS followed by GAF BUR Note 15. | -82.5* |

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| TABLE 1D: WOOD DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER<br>SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| System No. | Deck (Note 1) | Base Insulation Layer (Note 13) | Top Insulation Layer | | | Roof Cover (Note 15) | | | MDP (psf) |
| | | | Type | Fastener (Note 11) | Attach | Base | Ply | Cap | |
| **CONVENTIONAL SYSTEMS:** | | | | | | | | | |
| W-16. | Min. 19/32-inch plywood or wood plank | (Optional) One or more layers, any combination, loose-laid | One or more layers Min. 1.5-inch EnergyGuard Composite (wood fiber) | Note 2 | 1 per 3.0 ft² | BS | GAF BUR. Note 15. | | -45.0* |
| W-17. | Min. 19/32-inch plywood or wood plank | (Optional) One or more layers, any combination, loose-laid | One or more layers Min. 1.5-inch EnergyGuard Composite (perlite) | Note 2 | 1 per 3.0 ft² | BS | GAF BUR. Note 15. | | -45.0* |
| W-18. | Min. 19/32-inch plywood or wood plank | (Optional) One or more layers, any combination, loose-laid | One or more layers min. 1-inch Structodek High Density Fiberboard Roof Insulation | Note 2 | 1 per 4.0 ft² | BS | GAF BUR. Note 15. | | -45.0* |
| W-19. | Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c. | (Optional) One or more layers, any combination, loose-laid | Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board | Note 2 (#14 only) | 1 per 1.8 ft² | BS | GAF BUR. Note 15. | | -60.0 |
| **VENTING BASE SYSTEMS:** | | | | | | | | | |
| W-20. | Min. 19/32-inch plywood or wood plank | (Optional) One or more layers, any combination, loose-laid | One or more layers Min. 1.5-inch EnergyGuard Composite (wood fiber) | Note 2 | 1 per 3.0 ft² | V-BS | GAF BUR. Note 15. | | -45.0* |
| W-21. | Min. 19/32-inch plywood or wood plank | (Optional) One or more layers, any combination, loose-laid | One or more layers Min. 1-inch Structodek High Density Fiberboard Roof Insulation | Note 2 | 1 per 4.0 ft² | V-BS | GAF BUR. Note 15. | | -45.0* |
| W-22. | Min. 15/32-inch plywood at max. 24-inch span | (Optional) One or more layers, any combination, loose laid | Min. 1.5-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra | Note 2 | 1 per 1.3 ft² | V-BS | GAF BUR Note 15. | | -60.0* |

| TABLE 1E: WOOD DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER<br>SYSTEM TYPE D-2: INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| System No. | Deck (Note 1) | Insulation Layer(s) (Note 13) | | Base Sheet | | | Roof Cover (Note 15) | MDP (psf) |
| | | Type | Attach | Base | Fastener (Note 11) | Attach | | |
| W-23. | Min. 19/32-inch plywood or wood plank; 24" span, 8d common nails 6" o.c. | One or more layers, any combination | Loose Laid | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Note 2 | 12-inch o.c. at the 2-inch lap and 12-inch o.c. in two equally spaced, staggered center rows | GAF BUR. Note 15. (No V-BS) | -45.0 |
| W-24. | Min. 23/32-inch plywood to supports spaced max. 24-inch o.c.; 24" span, 8d ring shank nails 6" o.c. | One or more layers, any combination | Loose Laid | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Note 2 (#14 only) | 9-inch o.c. at the 2-inch lap and 9-inch o.c. in three equally spaced staggered center rows | GAF BUR. Note 15. (No V-BS) | -52.5 |
| W-25. | Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c. | One or more layers, any combination | Loose Laid | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Note 2 | 12-inch o.c. at the 2-inch lap and 12-inch o.c. in three equally spaced staggered center rows | GAF BUR. Note 15. (No V-BS) | -60.0 |
| W-26. | Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c. | One or more layers, any combination | Loose Laid | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Note 2 | 8-inch o.c. at the 2-inch lap and 8-inch o.c. in three equally spaced staggered center rows | GAF BUR. Note 15. (No V-BS) | -75.0 |

| TABLE 1F: WOOD DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)<br>SYSTEM TYPE E-2: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET (NAILS & CAPS), BONDED ROOF COVER | | | | | | |
|---|---|---|---|---|---|---|
| System No. | Deck (Note 1) | Base Sheet | | | Roof Cover (Note 15) | MDP (psf) |
| | | Type | Fastener (Note 11) | Attach | | |
| W-27. | Min. 19/32-inch plywood or wood plank; 24" span, 8d common nails 6" o.c. | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth | 32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails | 8-inch o.c. at min. 4-inch laps and 8-inch o.c. in two, equally spaced, staggered center rows | GAF BUR. Note 15. (No V-BS) | -45.0 |
| W-28. | Min. 19/32-inch plywood or wood plank; 24" span, 8d common nails 6" o.c. | GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Eliminator Nailable Venting Base Sheet, Ruberoid 20 Smooth, Ruberoid Mop Smooth, Ruberoid Mop Smooth 1.5 | 32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails | 9-inch o.c. at the 4-inch lap and 12-inch o.c. in two staggered center rows | GAF BUR. Note 15. (No V-BS) | -45.0 |
| W-29. | Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c. | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, GAFGLAS FlexPly 6, GAFGLAS FlexPly 6 M, Ruberoid 20 Smooth | 32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails | 9-inch o.c. at the 4-inch lap and 9-inch o.c. in two staggered center rows | GAF BUR. Note 15. (No V-BS) | -52.5 |
| W-30. | Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c. | GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth | FBC (HVHZ) approved 1.25-inch annular ring shank nails and inverted Drill-Tec 3-inch Galvalume Plate | 9-inch o.c. at the 4-inch lap and 9-inch o.c. in two staggered center rows | GAF BUR. Note 15. (No V-BS) | -60.0 |
| W-31. | Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c. | GAFGLAS #80 Ultima Base Sheet | 32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails | 7-inch o.c. at min. 4-inch laps and 7-inch o.c. in three, equally spaced, staggered center rows | GAF BUR. Note 15. (No V-BS) | -82.5 |
| W-32. | Min. 19/32-inch plywood at max. 24-inch span; 8d ring shank nails, 3" o.c. | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth | 32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails | 4-inch o.c. at min. 2-inch laps and 4-inch o.c. in four (4), equally spaced, staggered center rows | GAF BUR. Note 15. (No V-BS) | -97.5 |

| TABLE 1G: WOOD DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER<br>SYSTEM TYPE E-2: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET (SCREWS & PLATES), BONDED ROOF COVER | | | | | | |
|---|---|---|---|---|---|---|
| System No. | Deck (Note 1) | Base Sheet | | | Roof Cover (Note 15) | MDP (psf) |
| | | Type | Fastener (Note 11) | Attach | | |
| W-33. | Min. 19/32-inch plywood or wood plank; 24" span, 8d common nails 6" o.c. | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, GAFGLAS Ply 4, GAFGLAS Ply 4 M, Tri-Ply Ply 4 Ply Sheet, GAFGLAS FlexPly 6, GAFGLAS FlexPly 6 M, Ruberoid 20 Smooth | Note 2 | 12-inch o.c. at the 2-inch lap and 12-inch o.c. in two center staggered center rows | GAF BUR. Note 15. (No V-BS) | -45.0 |
| W-34. | Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c. | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth | Note 2 (#14 ONLY) | 16-inch o.c. at 4-inch laps and 16-inch o.c. in two, equally spaced, staggered center rows | GAF BUR. Note 15. (No V-BS) | -52.5 |
| W-35. | Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c. | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth | Note 2 (#14 ONLY) | 12-inch o.c. at 4-inch laps and 12-inch o.c. in two, equally spaced, staggered center rows | GAF BUR. Note 15. (No V-BS) | -60.0 |
| W-36. | Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c. | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth | Note 2 | 12-inch o.c. at the 2-inch lap and 12-inch o.c. in three staggered center rows | GAF BUR. Note 15. (No V-BS) | -60.0 |
| W-37. | Min. 19/32-inch plywood or wood plank; 24" span, 8d ring shank nails 6" o.c. | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, Ruberoid 20 Smooth | Note 2 | 8-inch o.c. at the 2-inch lap and 8-inch o.c. in three staggered center rows | GAF BUR. Note 15. (No V-BS) | -75.0 |

| TABLE 2A: STEEL DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)<br>SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| System No. | Deck (Note 1) | Base Insulation Layer | | Top Insulation Layer | | Roof Cover (Note 15) | | | MDP (psf) |
| | | Type | Attach (Notes 6,7,8) | Type | Attach (Notes 6,7,8) | Base Ply | Ply | Cap Ply | |
| **CONVENTIONAL SYSTEMS:** | | | | | | | | | |
| S-1. | Min. 22 ga., type B, Grade 40 steel; 6 ft span, 5/8" puddle welds, 6" o.c. | Min. 1.5-inch EnergyGuard Polyiso Insulation | LRF-M or OB500, 6-inch o.c. | Optional additional layer(s) min. 1.5-inch thick EnergyGuard Polyiso Insulation or EnergyGuard Ultra Polyiso Insulation followed by Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | LRF-M or OB500 | GAF BUR. Note 15. (No V-BS) | | | -60.0 |

| TABLE 2B: STEEL OR STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER<br>SYSTEM TYPE B-1: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| System No. | Deck α (Note 1) | Base Insulation Layer | | | Top Insulation Layer | | Roof Cover (Note 15) | | | MDP (psf) |
| | | Type | Fastener (Note 11) | Attach | Type | Attach (Notes 6,7,8) | Base | Ply | Cap | |
| **CONVENTIONAL SYSTEMS:** | | | | | | | | | | |
| S-2. | Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete | Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite (iso side up) | Note 2 | 1 per 3.0 ft$^2$ | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 1.5-inch EnergyGuard Composite (wood fiber) | hot asphalt | BS | GAF BUR. Note 15. | | -45.0* |
| S-3. | Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete | Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite (iso side up) | Note 2 | 1 per 3.0 ft$^2$ | Min. 0.5-inch EnergyGuard Perlite Recover Board or Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) or Min. 1.5-inch EnergyGuard Composite (perlite) | hot asphalt | BS | GAF BUR. Note 15. | | -45.0* |
| S-4. | Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete | Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) | Note 2 | 1 per 2.0 ft$^2$ | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 1.5-inch EnergyGuard Composite (wood fiber) | hot asphalt | BS | GAF BUR. Note 15. | | -45.0* |
| S-5. | Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete | Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) | Note 2 | 1 per 2.0 ft$^2$ | Min. 0.5-inch EnergyGuard Perlite Recover Board or Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) or Min. 1.5-inch EnergyGuard Composite (perlite) | hot asphalt | BS | GAF BUR. Note 15. | | -45.0* |
| S-6. | Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete | Min. 1.5-inch EnergyGuard Polyiso Insulation | Note 2 | 1 per 2.7 ft$^2$ | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or min. 0.75-inch EnergyGuard Perlite Roof Insulation | hot asphalt | BS | GAF BUR. Note 15. | | -45.0* |
| S-7. | Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete | Min. 1.5-inch EnergyGuard Polyiso Insulation | Note 2 | 1 per 4.0 ft$^2$ | Min. 0.5-inch EnergyGuard Perlite Recover Board or min. 0.25-inch SECUROCK Gypsum Fiber Roof Board, Dens Deck, Dens Deck Prime | hot asphalt | BS | GAF BUR. Note 15. | | -45.0* |

| TABLE 2B: STEEL OR STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER<br>SYSTEM TYPE B-1: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| System No. | Deck α (Note 1) | Base Insulation Layer | | | Top Insulation Layer | | Roof Cover (Note 15) | | | MDP (psf) |
| | | Type | Fastener (Note 11) | Attach | Type | Attach (Notes 6,7,8) | Base | Ply | Cap | |
| S-8. | Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete | Min. 2-inch EnergyGuard Polyiso Insulation | Note 2 | 1 per 4.0 ft$^2$ | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or min. 0.75-inch EnergyGuard Perlite Roof Insulation | hot asphalt | BS | GAF BUR. Note 15. | | -45.0* |
| S-9. | Min. 22 ga. type B, Grade 33 steel; 6 ft span, two (2) #12 HWH Teks 5, 6" o.c. or min. 2,500 psi structural concrete | Min. 2-inch EnergyGuard RA or RN or EnergyGuard Polyiso Insulation | Note 2 (#14 only for steel deck) | 1 per 1.3 ft$^2$ | Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) or Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation | hot asphalt | BS | GAF BUR. Note 15. | | -90.0 |
| S-10. | Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete | Min. 1.5-inch EnergyGuard RA or RN | Note 2 | 1 per 2.0 ft$^2$ | Min. 0.25-inch Dens Deck, Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board, or Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation | OB500 | BS | GAF BUR. Note 15. | | -45.0* |
| S-11. | Min. 22 ga. type B, Grade 33 steel; 6 ft span, #12 HWH Teks 5, 6" o.c. or min. 2,500 psi structural concrete | Min. 2-inch EnergyGuard RA or RN | Note 2 | 1 per 1.6 ft$^2$ | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | OB500 | BS | GAF BUR. Note 15. | | -60.0 |
| S-12. | Min. 22 ga. type B, Grade 33 steel; 6 ft span, #12 HWH Teks 5, 6" o.c. or min. 2,500 psi structural concrete | Min. 2-inch EnergyGuard RA | Note 2 | 1 per 1.6 ft$^2$ | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | LRF-XF | BS | GAF BUR. Note 15. | | -60.0 |
| **VENTING BASE SYSTEMS:** | | | | | | | | | | |
| S-13. | Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete | Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite (iso side up) | Note 2 | 1 per 3.0 ft$^2$ | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 1.5-inch EnergyGuard Composite (wood fiber) | hot asphalt | V-BS | GAF BUR. Note 15 | | -45.0* |
| S-14. | Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete | Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite (iso side up) | Note 2 | 1 per 2.0 ft$^2$ | Min. 1.0-inch EnergyGuard RA or RN | hot asphalt | V-BS | GAF BUR. Note 15 | | -45.0* |
| S-15. | Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete | Max. 48 x 48-inch x min. 1.5-inch EnergyGuard Polyiso Insulation | Note 2 | 1 per 4.0 ft$^2$ | Min. 1.5-inch EnergyGuard Polyiso Insulation | hot asphalt | V-BS | GAF BUR. Note 15 | | -45.0* |
| S-16. | Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete | Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) | Note 2 | 1 per 2.0 ft$^2$ | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 1.5-inch EnergyGuard Composite (wood fiber) | hot asphalt | V-BS | GAF BUR. Note 15 | | -45.0* |

α As-tested steel deck performance under Testing Application Standard TAS 114, Appendix J indicates steel deck at max. 6 ft span attached with 5/8" diameter puddle welds spaced 6" o.c. may be substituted for #12 HWH Teks 5 in the Table 2B assemblies to a maximum design pressure of -82.5 psf. Note 1.

| TABLE 2C: STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF)<br>SYSTEM TYPE B-2: MECHANICALLY ATTACHED THERMAL BARRIER, BONDED VAPOR RETARDER, BONDED TOP INSULATION, BONDED ROOF COVER | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| System No. | Deck (Note 1) | Thermal Barrier | | | Vapor Retarder | Insulation Layer(s) | | Roof Cover (Note 15) | | | MDP (psf) |
| | | Type | Fastener (Note 11) | Attach | | Type | Attach (Notes 6,7,8) | Base | Ply | Cap | |
| **CONVENTIONAL SYSTEMS:** | | | | | | | | | | | |
| S-17. | Min. 22 ga., Type B, Grade 33 steel; 6 ft span, #12 HWH Teks 5, 6" o.c. | 0.5-inch DensDeck Prime or SECUROCK Gypsum Fiber Roof Board | Note 2 | 1 per 2.0 ft$^2$ | GAF SA Vapor Retarder XL, self-adhering | Base Layer: Min. 1-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra; Mid Layer(s): (Optional) Additional layer(s) base insulation, min. 1.5-inch thick; Coverboard: Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board | LRF-M, LRF-XF or OB500 | GAF BUR. Note 15 | | | -67.5 |
| S-18. | Min. 22 ga., Type B, Grade 33 steel; 6 ft span, #12 HWH Teks 5, 6" o.c. | 0.5-inch DensDeck Prime or SECUROCK Gypsum Fiber Roof Board | Note 2 | 1 per 2.0 ft$^2$ | Primer: GAF SA Primer Vapor Retarder: GAF SA Vapor Retarder, self-adhering | Base Layer: Min. 1-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra; Mid Layer(s): (Optional) Additional layer(s) base insulation, min. 1.5-inch thick; Coverboard: Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board | LRF-M, LRF-XF or OB500 | GAF BUR. Note 15 | | | -67.5 |
| **VENTING SYSTEMS:** | | | | | | | | | | | |
| S-19. | Min. 22 ga., Type B, Grade 33 steel; 6 ft span, #12 HWH Teks 5, 6" o.c. | 0.5-inch DensDeck Prime or SECUROCK Gypsum Fiber Roof Board | Note 2 | 1 per 2.0 ft$^2$ | Primer: GAF SA Primer Vapor Retarder: GAF SA Vapor Retarder, self-adhering | Base Layer: Min. 1-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra; Top Layer(s): (Optional) Additional layer(s) base insulation, min. 1.5-inch thick | LRF-M, LRF-XF or OB500 | V-BS | GAF BUR. Note 15 | | -45.0* |
| S-20. | Min. 22 ga., Type B, Grade 33 steel; 6 ft span, #12 HWH Teks 5, 6" o.c. | 0.5-inch DensDeck Prime or SECUROCK Gypsum Fiber Roof Board | Note 2 | 1 per 2.0 ft$^2$ | GAF SA Vapor Retarder XL, self-adhering | Base Layer: Min. 1-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra; Top Layer(s): (Optional) Additional layer(s) base insulation, min. 1.5-inch thick Coverboard (Optional): Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board | LRF-M, LRF-XF or OB500 | V-BS | GAF BUR. Note 15 | | -45.0* |
| S-21. | Min. 22 ga., Type B, Grade 33 steel; 6 ft span, #12 HWH Teks 5, 6" o.c. | 0.5-inch DensDeck Prime or SECUROCK Gypsum Fiber Roof Board | Note 2 | 1 per 2.0 ft$^2$ | Primer: GAF SA Primer Vapor Retarder: GAF SA Vapor Retarder, self-adhering | Base Layer: Min. 1-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra; Top Layer(s): (Optional) Additional layer(s) base insulation, min. 1.5-inch thick; Coverboard: Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board | LRF-M, LRF-XF or OB500 | V-BS | GAF BUR. Note 15 | | -67.5 |

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

| System No. | Deck α (Note 1) | Base Insulation Layer (Note 13) | Top Insulation Layer | | | Roof Cover (Note 15) | | | MDP (psf) |
|---|---|---|---|---|---|---|---|---|---|
| | | | Type | Fastener (Note 11) | Attach | Base | Ply | Cap | |
| **CONVENTIONAL SYSTEMS:** | | | | | | | | | |
| S-22. | Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete | (Optional) One or more layers, any combination | Min. 1.5-inch EnergyGuard Composite (iso side down) | Note 2 | 1 per 4.0 ft² | BS | GAF BUR. Note 15. | | -45.0* |
| S-23. | Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete | (Optional) One or more layers, any combination | Min. 1-inch Structodek High Density Fiberboard Roof Insulation | Note 2 | 1 per 4.0 ft² | BS | GAF BUR. Note 15. | | -45.0* |
| S-24. | Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete | (Optional) One or more layers, any combination | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation | Note 2 | 1 per 3.0 ft² | BS | GAF BUR. Note 15. | | -45.0* |
| S-25. | Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete | (Optional) One or more layers, any combination | Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) | Note 2 | 1 per 2.0 ft² | BS | GAF BUR. Note 15. | | -45.0* |
| S-26. | Min. 22 ga. type B, Grade 33 steel; 6 ft span, #12 HWH Teks 5, 6" o.c. or min. 2,500 psi structural concrete | (Optional) One or more layers, any combination | Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board | Note 2 | 1 per 1.8 ft² | BS | GAF BUR. Note 15. | | -60.0 |
| **VENTING BASE SYSTEMS:** | | | | | | | | | |
| S-27. | Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete | (Optional) One or more layers, any combination | Min. 1.5-inch EnergyGuard RA or RN | Note 2 | 1 per 3.0 ft² | V-BS | GAF BUR. Note 15 | | -45.0* |
| S-28. | Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete | (Optional) One or more layers, any combination | Min. 2-inch EnergyGuard Ultra | Note 2 (no Drill-Tec 3" Flat Steel Plate or Drill-Tec 3" Recesssed Steel Plate) | 1 per 4.0 ft² | V-BS | GAR BUR. Note 15. | | -45.0* |
| S-29. | Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete | (Optional) One or more layers, any combination | Min. 1.5-inch EnergyGuard RA or RN | Note 2 | 1 per 3.0 ft² | V-BS | GAF BUR. Note 15 | | -45.0* |
| S-30. | Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete | (Optional) One or more layers, any combination | Min. 2-inch EnergyGuard RH | Note 2 | 1 per 2.9 ft² | V-BS | GAR BUR. Note 15. | | -45.0* |
| S-31. | Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete | (Optional) One or more layers, any combination | Max. 48 x 48-inch x min. 2-inch EnergyGuard Polyiso Insulation | Note 2 | 1 per 3.2 ft² | V-BS | GAR BUR. Note 15. | | -45.0* |
| S-32. | Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete | (Optional) One or more layers, any combination | Min. 1.5-inch EnergyGuard Polyiso Insulation | Note 2 | 1 per 2.0 ft² | V-BS | GAR BUR. Note 15. | | -45.0* |
| S-33. | Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi structural concrete | (Optional) One or more layers, any combination | Min. 2-inch EnergyGuard RA or RN, EnergyGuard Polyiso Insulation or EnergyGuard RA Composite (iso side up) | Note 2 | 1 per 1.45 ft² | V-BS | GAF BUR. Note 15 | | -60.0 |
| S-34. | Min. 22 ga. type B, Grade 33 steel; 6 ft span, #12 HWH Teks 5, 6" o.c. or min. 2,500 psi structural concrete | (Optional) One or more layers, any combination | Min. 1.5-inch EnergyGuard RA or RN | Note 2 | 1 per 1.45 ft² | V-BS | PS-MB | CS | -60.0 |
| S-35. | Min. 22 ga. type B, Grade 33 steel; 6 ft span, #12 HWH Teks 5, 6" o.c. or min. 2,500 psi structural concrete | (Optional) One or more layers, any combination | Min. 2-inch EnergyGuard RA or RN or EnergyGuard Composite (iso side up) | Note 2 | 1 per 1.45 ft² | V-BS | GAF BUR. Note 15 | | -60.0 |
| S-36. | Min. 22 ga. type B, Grade 33 steel; 6 ft span, #12 HWH Teks 5, 6" o.c. or min. 2,500 psi structural concrete | (Optional) One or more layers, any combination | Min. 2-inch EnergyGuard Ultra | Note 2 (no Drill-Tec 3" Flat Steel Plate or Drill-Tec 3" Recesssed Steel Plate) | 1 per 1.45 ft² | V-BS | PS-MB | CS | -75.0 |

| TABLE 2D: STEEL OR STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER<br>SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| System No. | Deck α (Note 1) | Base Insulation Layer (Note 13) | Top Insulation Layer | | | Roof Cover (Note 15) | | | MDP (psf) |
| | | | Type | Fastener (Note 11) | Attach | Base | Ply | Cap | |
| S-37. | Min. 22 ga. type B, Grade 33 steel; 6 ft span, #12 HWH Teks 5, 6" o.c. or min. 2,500 psi structural concrete | Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Polyiso Insulation | Min. 0.25-inch Dens Deck | Note 2 | 1 per 1.0 ft$^2$ | V-BS | PS or PS-MB | CS | -82.5 |
| S-38. | Min. 22 ga. type B, Grade 33 steel; 6 ft span, #12 HWH Teks 5, 6" o.c. or min. 2,500 psi structural concrete | (Optional) One or more layers, any combination | Min. 3-inch EnergyGuard Polyiso Insulation | Note 2 | 1 per 1.6 ft$^2$ | V-BS | GAF BUR. Note 15 | | -82.5 |

α As-tested steel deck performance under Testing Application Standard TAS 114, Appendix J indicates steel deck at max. 6 ft span attached with 5/8" diameter puddle welds spaced 6" o.c. may be substituted for #12 HWH Teks 5 in the Table 2D assemblies to a maximum design pressure of -82.5 psf. Note 1.

| TABLE 2E: STEEL OR STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER<br>SYSTEM TYPE D-2: INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| System No. | Deck α (Note 1) | Insulation Layer(s) (Note 13) | Base Sheet | | | Roof Cover (Note 15) | | MDP (psf) |
| | | | Base | Fastener (Note 11) | Attach | Ply | Cap | |
| S-39. | Min. 22 ga. type B, Grade 33 steel | One or more layers, any combination | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Note 2 | 18-inch o.c. at the 2-inch lap and 18-inch o.c. in three equally spaced staggered center rows | GAF BUR. Note 15. (No V-BS) | | -45.0* |
| S-40. | Min. 2,500 psi structural concrete | One or more layers, any combination | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Note 2 (Drill-Tec #14 only) | 18-inch o.c. at the 2-inch lap and 18-inch o.c. in three equally spaced staggered center rows | GAF BUR. Note 15. (No V-BS) | | -45.0* |
| S-41. | Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structrual concrete | One or more layers, any combination | GAFGLAS #80 Ultima Base Sheet | Drill-Tec #12 DF Fastener (steel only) or Drill-Tec #14 DF Fastener with Drill-Tec 3" DF Steel Insulation Plate | 18-inch o.c. at min. 2-inch laps and 18-inch o.c. in three, equally spaced, staggered center rows | GAF BUR. Note 15. (No V-BS) | | -45.0* |
| S-42. | Min. 22 ga. type B, Grade 33 steel | One or more layers, any combination | Ruberoid Mop Smooth 1.5 | Note 2 | 24-inch o.c. at the 3-inch lap and 24-inch o.c. in two equally spaced staggered center rows | GAF BUR. Note 15. (No V-BS) | | -45.0* |
| S-43. | Min. 2,500 psi structural concrete | One or more layers, any combination | Ruberoid Mop Smooth 1.5 | Note 2 (Drill-Tec #14 only) | 24-inch o.c. at the 3-inch lap and 24-inch o.c. in two equally spaced staggered center rows | GAF BUR. Note 15. (No V-BS) | | -45.0* |
| S-44. | Min. 2,500 psi structural concrete | One or more layers, any combination | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Note 2 (Drill-Tec #14 only) | 9-inch o.c. at the 2-inch lap and 9-inch o.c. in two equally spaced staggered center rows | GAF BUR. Note 15. (No V-BS) | | -45.0 |
| S-45. | Min. 2,500 psi structural concrete | One or more layers, any combination | GAFGLAS #80 Ultima Base Sheet | Drill-Tec #14 DF Fastener with Drill-Tec 3" DF Steel Insulation Plate | 9-inch o.c. at the 2-inch lap and 9-inch o.c. in two equally spaced staggered center rows | GAF BUR. Note 15. (No V-BS) | | -45.0 |

| TABLE 2E: STEEL OR STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER<br>SYSTEM TYPE D-2: INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| System No. | Deck α (Note 1) | Insulation Layer(s) (Note 13) | Base Sheet | | | Roof Cover (Note 15) | | MDP (psf) |
| | | | Base | Fastener (Note 11) | Attach | Ply | Cap | |
| S-46. | Min. 22 ga. type B, Grade 33 steel; 6 ft spans; 6" o.c. with TRAXX/5 screws | One or more layers, any combination | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Note 2 | 6-inch o.c. at the 3-inch lap and 6-inch o.c. in two equally spaced staggered center rows | GAF BUR. Note 15. (No V-BS) | | -75.0 |
| S-47. | Min. 2,500 psi structural concrete | One or more layers, any combination | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Note 2 (Drill-Tec #14 only) | 7-inch o.c. at the 3-inch lap and 7-inch o.c. in two equally spaced staggered center rows | GAF BUR. Note 15. (No V-BS) | | -75.0 |
| S-48. | Min. 2,500 psi structural concrete | One or more layers, any combination | GAFGLAS #80 Ultima Base Sheet | Drill-Tec #14 DF Fastener with Drill-Tec 3" DF Steel Insulation Plate | 7-inch o.c. at the 3-inch lap and 7-inch o.c. in two equally spaced staggered center rows | GAF BUR. Note 15. (No V-BS) | | -75.0 |

α As-tested steel deck performance under Testing Application Standard TAS 114, Appendix J indicates steel deck at max. 6 ft span attached with 5/8" diameter puddle welds spaced 6" o.c. may be substituted for #12 HWH Teks 5 in the Table 2E assemblies to a maximum design pressure of -82.5 psf. Note 1.

## TABLE 3A: STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
## SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER
SEE Note 16 FOR VAPOR BARRIER OPTIONS

| System No. | Deck (Note 1) | Prime | Base Insulation Layer | | Top Insulation Layer | | Roof Cover (Note 15) | | | MDP (psf) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Type | Attach (Notes 6,7,8) | Type | Attach (Notes 6,7,8) | Base | Ply | Cap | |
| **CONVENTIONAL SYSTEMS:** | | | | | | | | | | |
| C-1. | Min. 2,500 psi structural concrete | ASTM D41 | Min. 1.5-inch EnergyGuard RA or RN | hot asphalt | Min. 0.25-inch Dens Deck, Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | hot asphalt or OB500 | BS | GAF BUR. Note 15. | | -45.0* |
| C-2. | Min. 2,500 psi structural concrete | ASTM D41 | Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) | hot asphalt | None | N/A | BS | GAF BUR. Note 15. | | -137.0* |
| C-3. | Min. 2,500 psi structural concrete | ASTM D41 | Min. 1.5-inch EnergyGuard Composite | hot asphalt | None | N/A | BS | GAF BUR. Note 15. | | -140.0* |
| C-4. | Min. 2,500 psi structural concrete | ASTM D41 | Min. 0.5-inch EnergyGuard Polyiso Insulation | hot asphalt | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation, EnergyGuard Perlite Recover Board, min. 0.75-inch EnergyGuard Perlite Roof Insulation, min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board, Dens Deck, Dens Deck Prime | hot asphalt | BS | GAF BUR. Note 15. | | -150.0* |
| C-5. | Min. 2,500 psi structural concrete | ASTM D41 | Min. 1.3-inch EnergyGuard RA or RN or Min. 1.5-inch EnergyGuard Composite | hot asphalt | Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) | hot asphalt | BS | GAF BUR. Note 15. | | -157.0* |
| C-6. | Min. 2,500 psi structural concrete | ASTM D41 | Min. 1.3-inch EnergyGuard RA or RN or Min. 1.5-inch EnergyGuard Composite | hot asphalt | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation | N/A | BS | GAF BUR. Note 15. | | -162.0* |
| C-7. | Min. 2,500 psi structural concrete | ASTM D41 | Min. 1-inch EnergyGuard Perlite Roof Insulation (homogeneous) or Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation | hot asphalt | None | N/A | BS | GAF BUR. Note 15. | | -270.0* |
| C-8. | Min. 2,500 psi structural concrete | ASTM D41 | Min. 1.5-inch EnergyGuard RA or RN | hot asphalt | Min. 1.5-inch EnergyGuard Composite | hot asphalt | BS | GAF BUR. Note 15. | | -270.0* |
| C-9. | Min. 2,500 psi structural concrete | ASTM D41 | Min. 2-inch EnergyGuard RA or RN | hot asphalt | Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) | hot asphalt | BS | GAF BUR. Note 15. | | -322.5* |
| C-10. | Min. 2,500 psi structural concrete | ASTM D41 | Min. 1.5-inch EnergyGuard RA or RN | hot asphalt | Min. 0.5-inch EnergyGuard Perlite Recover Board | hot asphalt | BS | GAF BUR. Note 15. | | -360.0* |
| C-11. | Min. 2,500 psi structural concrete | None | Min. 1.0-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra | LRF-M | Insulation: (Optional) Additional layer(s) base insulation. Coverboard: Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | LRF-M | BS | GAF BUR. Note 15. | | -202.5* |

## TABLE 3A: STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
## SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER
SEE Note 16 FOR VAPOR BARRIER OPTIONS

| System No. | Deck (Note 1) | Prime | Base Insulation Layer | | Top Insulation Layer | | Roof Cover (Note 15) | | | MDP (psf) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Type | Attach (Notes 6,7,8) | Type | Attach (Notes 6,7,8) | Base | Ply | Cap | |
| C-12. | Min. 2,500 psi structural concrete | None | Min. 1.5-inch EnergyGuard Polyiso Insulation | LRF-M Canister | Insulation: (Optional) Additional layer(s) base insulation.<br>Coverboard: Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | LRF-M Canister | BS | GAF BUR. Note 15. | | -202.5* |
| C-13. | Min. 2,500 psi structural concrete | None | Min. 1.0-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra | LRF-XF | Insulation: (Optional) Additional layer(s) base insulation.<br>Coverboard: Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board | LRF-XF | BS | GAF BUR. Note 15. | | -202.5* |
| C-14. | Min. 2,500 psi structural concrete | None | (Optional) Min. 1.5-inch EnergyGuard RA | LRF-XF | Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board | LRF-XF | BS | GAF BUR. Note 15. | | -240.0* |
| C-15. | Min. 2,500 psi structural concrete | None | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation | OB500 | None | N/A | BS | GAF BUR. Note 15. | | -165.0* |
| C-16. | Min. 2,500 psi structural concrete | None | Min. 1.5-inch EnergyGuard RA or RN | OB500 | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation | OB500 | BS | GAF BUR. Note 15. | | -165.0* |
| C-17. | Min. 2,500 psi structural concrete | None | Min. 1.5-inch EnergyGuard RA or RN | OB500 | Min. 0.25-inch Dens Deck or Dens Deck Prime | OB500 | BS | GAF BUR. Note 15. | | -150.0* |
| C-18. | Min. 2,500 psi structural concrete | None | Min. 1.0-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra | OB500 | Insulation: (Optional) Additional layer(s) base insulation.<br>Coverboard: Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | OB500 | BS | GAF BUR. Note 15. | | -202.5* |
| C-19. | Min. 2,500 psi structural concrete | None | Min. 1.5-inch EnergyGuard RA or RN | OB500 | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | OB500 | BS | GAF BUR. Note 15. | | -225.0* |
| **VENTING BASE SYSTEMS:** | | | | | | | | | | |
| C-20. | Min. 2,500 psi structural concrete | ASTM D41 | Min. 0.5-inch EnergyGuard Polyiso Insulation | hot asphalt | (Optional) Additional layer(s) base insulation | hot asphalt | V-BS | GAF BUR. Note 15. | | -150.0* |
| C-21. | Min. 2,500 psi structural concrete | ASTM D41 | Min. 1-inch EnergyGuard RN | hot asphalt | (Optional) Additional layers base insulation | hot asphalt | V-BS | GAF BUR. Note 15. | | -292.5* |
| C-22. | Min. 2,500 psi structural concrete | None | Min. 1.0-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra | LRF-M | Insulation: (Optional) Additional layer(s) base insulation. | LRF-M | V-BS | GAF BUR. Note 15. | | -150.0* |
| C-23. | Min. 2,500 psi structural concrete | None | Min. 1.0-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra | LRF-M | Insulation: (Optional) Additional layer(s) base insulation.<br>Coverboard: Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | LRF-M | V-BS | GAF BUR. Note 15. | | -202.5* |

**TABLE 3A: STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)**
**SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**
SEE Note 15 FOR VAPOR BARRIER OPTIONS

| System No. | Deck (Note 1) | Prime | Base Insulation Layer | | Top Insulation Layer | | Roof Cover (Note 15) | | | MDP (psf) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Type | Attach (Notes 6,7,8) | Type | Attach (Notes 6,7,8) | Base | Ply | Cap | |
| C-24. | Min. 2,500 psi structural concrete | None | Min. 1.5-inch EnergyGuard Polyiso Insulation | LRF-M Canister | Insulation: (Optional) Additional layer(s) base insulation. | LRF-M Canister | V-BS | GAF BUR. Note 15. | | -150.0* |
| C-25. | Min. 2,500 psi structural concrete | None | Min. 1.5-inch EnergyGuard Polyiso Insulation | LRF-M Canister | Insulation: (Optional) Additional layer(s) base insulation. Coverboard: Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | LRF-M Canister | V-BS | GAF BUR. Note 15. | | -202.5* |
| C-26. | Min. 2,500 psi structural concrete | None | Min. 1.0-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra | LRF-XF | Insulation: (Optional) Additional layer(s) base insulation. | LRF-XF | V-BS | GAF BUR. Note 15. | | -150.0* |
| C-27. | Min. 2,500 psi structural concrete | None | Min. 1.0-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra | LRF-XF | Insulation: (Optional) Additional layer(s) base insulation. Coverboard: Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | LRF-XF | V-BS | GAF BUR. Note 15. | | -202.5* |
| C-28. | Min. 2,500 psi structural concrete | None | Min. 1.0-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra | OB500 | Insulation: (Optional) Additional layer(s) base insulation. | OB500 | V-BS | GAF BUR. Note 15. | | -150.0* |
| C-29. | Min. 2,500 psi structural concrete | None | Min. 1.0-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra | OB500 | Insulation: (Optional) Additional layer(s) base insulation. Coverboard: Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | OB500 | V-BS | GAF BUR. Note 15. | | -202.5* |

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

| System No. | Deck (Note 1) | Primer | Roof Cover (Note 15) | | | MDP (psf) |
|---|---|---|---|---|---|---|
| | | | Base | Ply | Cap | |
| C-30. | Min. 2,500 psi structural concrete | ASTM D41 | V-BS | GAF BUR. Note 15. | | -90.0* |
| C-31. | Min. 2,500 psi structural concrete | Matrix 307 Premium Asphalt Primer | V-BS | GAF BUR. Note 15. | | -185.0* |
| C-32. | Min. 2,500 psi structural concrete | ASTM D41 | BS | GAF BUR. Note 15. | | -457.5* |

| TABLE 4A: LIGHTWEIGHT INSULATING CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)<br>SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| System No. | Deck (Note 1) | LWC (Note 14) | Base Insulation Layer | | Coverboard | | Roof Cover (Note 15) | | | MDP (psf) |
| | | | Type | Attach (Notes 6,7,8) | Type | Attach (Notes 6,7,8) | Base | Ply | Cap | |
| **CELCORE, NOA 18-0717.05:** | | | | | | | | | | |
| LWC-1. | Min. 2,500 psi structural concrete | Min. 300 psi Celcore Cellular Concrete | Min. 1.5-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation, EnergyGuard RA Polyiso, EnergyGuard RH Polyiso, EnergyGuard RN Polyiso | OB500 | Min. 0.25-inch Dens Deck, Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | OB500 | GAF BUR. Note 15. | | | -150.0 |
| **ELASTIZELL, NOA 18-0208.03:** | | | | | | | | | | |
| LWC-2. | Min. 2,500 psi structural concrete | Min. 300 psi Elastizell Lightweight Insulating Concrete | Min. 1.5-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation, EnergyGuard RA Polyiso, EnergyGuard RH Polyiso, EnergyGuard RN Polyiso | OB500 | Min. 0.25-inch Dens Deck, Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | OB500 | GAF BUR. Note 15. | | | -150.0 |
| **MEARLCRETE, NOA 19-0729.03:** | | | | | | | | | | |
| LWC-3. | Min. 2,500 psi structural concrete | Min. 300 psi Mearlcrete | Min. 1.5-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation, EnergyGuard RA Polyiso, EnergyGuard RH Polyiso, EnergyGuard RN Polyiso | OB500 | Min. 0.25-inch Dens Deck, Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | OB500 | GAF BUR. Note 15. | | | -150.0 |

| TABLE 4B: LIGHTWEIGHT CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)<br>SYSTEM TYPE B-3: MECHANICALLY ATTACHED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| System No. | Deck (Note 1)α | LWC (Note 14) | Anchor Sheet | | | Insulation | | Roof Cover (Note 15) | | | MDP (psf) |
| | | | Type | Fastener (Note 11) | Attach | Type | Attach (Notes 6,7,8) | Base | Ply | Cap | |
| **PRE-EXISTENT LIGHTWEIGHT CONCRETE (Note 14):** | | | | | | | | | | | |
| **CONVENTIONAL SYSTEMS:** | | | | | | | | | | | |
| LWC-4. | Min. 22 ga., Type B, grade 33 vented steel; 6 ft span or struct concrete | Min. 250 psi pre-existent cellular or aggregate LWIC. | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Drill-Tec Base Sheet Fastener (1.7 in.) (MCRF ≥ 70 lbf) | 9-inch o.c. at the 2-inch lap and 9-inch o.c. in two equally spaced, staggered center rows | One or more layers, any combination, Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite, Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous), Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or EnergyGuard Perlite Recover Board or Min. 0.25-inch Dens Deck, Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | hot asphalt | BS | GAF BUR. Note 15. | | -45.0 |

| TABLE 4B: LIGHTWEIGHT CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)<br>SYSTEM TYPE B-3: MECHANICALLY ATTACHED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| System No. | Deck (Note 1)α | LWC (Note 14) | Anchor Sheet | | | Insulation | | Roof Cover (Note 15) | | | MDP (psf) |
| | | | Type | Fastener (Note 11) | Attach | Type | Attach (Notes 6,7,8) | Base | Ply | Cap | |
| LWC-5. | Min. 22 ga., Type B, grade 33 vented steel; 6 ft span or struct concrete | Min. 250 psi pre-existent cellular or aggregate LWIC. | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Drill-Tec Base Sheet Fastener (1.7 in.) (MCRF ≥ 56 lbf) | 12-inch o.c. at the 2-inch lap and 9-inch o.c. in three equally spaced, staggered center rows | One or more layers, any combination, Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite, Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous), Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or EnergyGuard Perlite Recover Board or Min. 0.25-inch Dens Deck, Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | hot asphalt | BS | GAF BUR. Note 15. | | -45.0 |
| LWC-6. | Min. 22 ga., Type B, grade 33 vented steel; 5 ft span or struct concrete | Min. 300 psi pre-existent cellular LWIC. | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet | Drill-Tec Base Sheet Fastener (1.7 in.) (MCRF ≥ 88 lbf) | 7-inch o.c. at the 3-inch lap and 7-inch o.c. in two equally spaced, staggered center rows | One or more layers, any combination, Min. 1.5-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation or EnergyGuard RH Polyiso, followed by Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous), Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or EnergyGuard Perlite Recover Board or Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | hot asphalt | BS | GAF BUR. Note 15. | | -75.0 |
| **VENTING BASE SYSTEMS:** | | | | | | | | | | | |
| LWC-7. | Min. 22 ga., Type B, grade 33 vented steel; 6 ft span or struct concrete | Min. 250 psi pre-existent cellular or aggregate LWIC. | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Drill-Tec Base Sheet Fastener (1.7 in.) (MCRF ≥ 70 lbf) | 9-inch o.c. at the 2-inch lap and 9-inch o.c. in two equally spaced, staggered center rows | One or more layers, any combination, Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite (fiberboard), Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 0.25-inch Dens Deck, Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | hot asphalt | V-BS | GAF BUR. Note 15. | | -45.0 |
| LWC-8. | Min. 22 ga., Type B, grade 33 vented steel; 6 ft span or struct concrete | Min. 250 psi pre-existent cellular or aggregate LWIC. | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Drill-Tec Base Sheet Fastener (1.7 in.) (MCRF ≥ 56 lbf) | 12-inch o.c. at the 2-inch lap and 9-inch o.c. in three equally spaced, staggered center rows | One or more layers, any combination, Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite (fiberboard), Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 0.25-inch Dens Deck, Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | hot asphalt | V-BS | GAF BUR. Note 15. | | -45.0 |
| LWC-9. | Min. 22 ga., Type B, grade 33 vented steel; 5 ft span or struct concrete | Min. 300 psi pre-existent cellular LWIC. | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet | Drill-Tec Base Sheet Fastener (1.7 in.) (MCRF ≥ 88 lbf) | 7-inch o.c. at the 3-inch lap and 7-inch o.c. in two equally spaced, staggered center rows | One or more layers, any combination, Min. 1.5-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation or EnergyGuard RH Polyiso or Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | hot asphalt | V-BS | GAF BUR. Note 15. | | -75.0 |

α For steel deck application where specific deck attachment is not referenced, 'as-tested' attachment was not less than 5/8" puddle welds with weld-washers or #12 HWH Teks 5 spaced 6" o.c. Note 1.

| TABLE 4C: LIGHTWEIGHT CONCRETE DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER<br>SYSTEM TYPE D-2: INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| System No. | Deck (Note 1) | LWC (Note 14) | Insulation Layer(s) | | Base Sheet | | | Roof Cover (Note 15) | MDP (psf) |
| | | | Type | Attach | Base | Fastener (Note 11) | Attach | | |
| LWC-10. | Min. 22 ga. type B, Grade 33 steel | FBC HVHZ approved cellular lightweight concrete | One or more layers, any combination | Prelim attach | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Note 2 | Fastened through to engage structural deck 18-inch o.c. at the 2-inch lap and 18-inch o.c. in three equally spaced staggered center rows | GAF BUR. Note 15. | -45.0* |
| LWC-11. | Min. 2,500 psi structural concrete | FBC HVHZ approved cellular lightweight concrete | One or more layers, any combination | Prelim attach | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Note 2 (Drill-Tec #14 only) | Fastened through to engage structural deck 18-inch o.c. at the 2-inch lap and 18-inch o.c. in three equally spaced staggered center rows | GAF BUR. Note 15. | -45.0* |
| LWC-12. | Min. 22 ga. type B, Grade 33 steel | FBC HVHZ approved cellular lightweight concrete | One or more layers, any combination | Prelim attach | Ruberoid Mop Smooth 1.5 | Note 2 | Fastened through to engage structural deck 24-inch o.c. at the 3-inch lap and 24-inch o.c. in two equally spaced staggered center rows | GAF BUR. Note 15. | -45.0* |
| LWC-13. | Min. 2,500 psi structural concrete | FBC HVHZ approved cellular lightweight concrete | One or more layers, any combination | Prelim attach | Ruberoid Mop Smooth 1.5 | Note 2 (Drill-Tec #14 only) | Fastened through to engage structural deck 24-inch o.c. at the 3-inch lap and 24-inch o.c. in two equally spaced staggered center rows | GAF BUR. Note 15. | -45.0* |
| LWC-14. | Min. 2,500 psi structural concrete | FBC HVHZ approved cellular lightweight concrete | One or more layers, any combination | Prelim attach | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Note 2 (Drill-Tec #14 only) | Fastened through to engage structural deck 9-inch o.c. at the 2-inch lap and 9-inch o.c. in two equally spaced staggered center rows | GAF BUR. Note 15. | -45.0 |
| LWC-15. | Min. 22 ga. type B, Grade 33 steel; 6 ft spans; 6” o.c. with TRAXX/5 screws | FBC HVHZ approved cellular lightweight concrete | One or more layers, any combination | Prelim attach | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Note 2 | Fastened through to engage structural deck 6-inch o.c. at the 3-inch lap and 6-inch o.c. in two equally spaced staggered center rows | GAF BUR. Note 15. | -75.0 |
| LWC-16. | Min. 2,500 psi structural concrete | FBC HVHZ approved cellular lightweight concrete | One or more layers, any combination | Prelim attach | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Note 2 (Drill-Tec #14 only) | Fastened through to engage structural deck 7-inch o.c. at the 3-inch lap and 7-inch o.c. in two equally spaced staggered center rows | GAF BUR. Note 15. | -75.0 |

| TABLE 4D: LIGHTWEIGHT CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)<br>SYSTEM TYPE E-2: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| System No. | Deck (Note 1) α | LWC (Note 14) | Base Sheet | | | Roof Cover (Note 15) | | MDP (psf) |
| | | | Type | Fastener (Note 11) | Attach | Ply | Cap | |
| **PRE-EXISTENT LIGHTWEIGHT CONCRETE (Note 14):** | | | | | | | | |
| LWC-17. | Min. 22 ga., Type B, grade 33 vented steel; 6 ft span or struct concrete | Min. 250 psi pre-existent cellular LWIC | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet or GAFGLAS Stratavent Nailable Venting Base Sheet | Drill-Tec Base Sheet Fastener (1.7 in.) (MCRF ≥ 70 lbf) | 9-inch o.c. at the 2-inch lap and 9-inch o.c. in two equally spaced, staggered center rows | GAF BUR. Note 15. (No V-BS) | | -45.0 |
| LWC-18. | Min. 22 ga., Type B, grade 33 vented steel; 6 ft span or struct concrete | Min. 250 psi pre-existent cellular LWIC | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet or GAFGLAS Stratavent Nailable Venting Base Sheet | Drill-Tec Base Sheet Fastener (1.7 in.) (MCRF ≥ 56 lbf) | 12-inch o.c. at the 2-inch lap and 9-inch o.c. in three equally spaced, staggered center rows | GAF BUR. Note 15. (No V-BS) | | -45.0 |
| LWC-19. | Min. 22 ga., Type B, grade 33 vented steel; 6 ft span or struct concrete | Min. 300 psi pre-existent cellular LWIC | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet or GAFGLAS Stratavent Nailable Venting Base Sheet | Drill-Tec Locking Impact Nail (1.8-inch) (MCRF ≥ 88 lbf) | 9-inch o.c. at the 4-inch lap and 9-inch o.c. in two equally spaced, staggered center rows | GAF BUR. Note 15. (No V-BS) | | -60.0 |
| LWC-20. | Min. 22 ga., Type B, grade 33 vented steel; 5 ft span or struct concrete | Min. 300 psi pre-existent cellular LWIC | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet or GAFGLAS Stratavent Nailable Venting Base Sheet | Drill-Tec Base Sheet Fastener (1.7 in.) (MCRF ≥ 88 lbf) | 7-inch o.c. at the 3-inch lap and 7-inch o.c. in two equally spaced, staggered center rows | GAF BUR. Note 15. (No V-BS) | | -75.0 |
| **ELASTIZELL, NOA 18-0208.03:** | | | | | | | | |
| LWC-21. | Min. 22 ga., Type B, grade 33 vented steel; 5 ft span or struct concrete | Min. 300 psi Elastizell Lightweight Insulating Concrete | GAFGLAS #80 Ultima Base Sheet | Drill-Tec Base Sheet Fastener (1.7 in.) | 7-inch o.c. at the 3-inch lap and 7-inch o.c. in two equally spaced, staggered center rows | PS-MB with optional additional layer(s) PS | CS | -82.5 |
| LWC-22. | Min. 22 ga., Type B, grade 33 vented steel; 5 ft span or struct concrete | Min. 300 psi Elastizell Lightweight Insulating Concrete | Ruberoid Mop Smooth, Ruberoid Mop Granule, Ruberoid HW Smooth or Ruberoid HW Granule (granule side down) | Note 2 (fastening to structural deck) | Through LWC to engage structural deck: 12-inch o.c. at the 4-inch lap and 12-inch o.c. in two equally spaced, staggered center rows | PS-MB with optional additional layer(s) PS | CS | -97.5 |

α For steel deck application where specific deck attachment is not referenced, 'as-tested' attachment was not less than 5/8" puddle welds with weld-washers or #12 HWH Teks 5 spaced 6" o.c. Note 1.

| TABLE 4E: LIGHTWEIGHT CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)<br>SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| System No. | Deck (Note 1) | LWC (Note 14) | | Primer | Roof Cover (Note 15) | | | MDP (psf) |
| | | Type | Treatment | | Base | Ply | Cap | |
| **ELASTIZELL, NOA 18-0208.03:** | | | | | | | | |
| LWC-23. | Min. 22 ga., type BV, Grade 33, G90 steel at max. 5 ft spans; 5/8" puddle welds with weld-washers, 6" o.c. Side laps stitched with Tek/1 screws, three (3) equally spaced between supports. | Min. 350 psi Elastizell Cellular/Hybird LWIC with Zell-crete Fibers cast at 54 pcf wet-cast density with min. 1-inch thick Holey Board and min. 2-inch thick top coat | Elastizell Zell-erator Sealer at 200 ft²/gal. | ASTM D41 | V-BS | GAF BUR. Note 15. | | -112.5 |

| TABLE 5A: CEMENTITIOUS WOOD FIBER DECKS – REROOF (TEAR-OFF) OR RECOVER<br>SYSTEM TYPE B-1: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| System No. | Deck (Note 1) | Base Insulation Layer | | | Top Insulation Layer | | Roof Cover (Note 15) | | | MDP (psf) |
| | | Type | Fastener (Note 11) | Attach | Type | Attach (Notes 6,7,8) | Base | Ply | Cap | |
| **CONVENTIONAL SYSTEMS:** | | | | | | | | | | |
| CWF-1. | Existing Tectum | Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite (iso side up) | Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate | 1 per 3.0 ft$^2$ | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 1.5-inch EnergyGuard Composite (wood fiber) | hot asphalt | BS | GAF BUR. Note 15 | | -45.0* |
| CWF-2. | Existing Tectum | Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite (iso side up) | Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate | 1 per 3.0 ft$^2$ | Min. 0.5-inch EnergyGuard Perlite Recover Board or Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) or Min. 1.5-inch EnergyGuard Composite (perlite) | hot asphalt | BS | GAF BUR. Note 15 | | -45.0* |
| CWF-3. | Existing Tectum | Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) | Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate | 1 per 2.0 ft$^2$ | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 1.5-inch EnergyGuard Composite (wood fiber) | hot asphalt | BS | GAF BUR. Note 15 | | -45.0* |
| CWF-4. | Existing Tectum | Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) | Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate | 1 per 2.0 ft$^2$ | Min. 0.5-inch EnergyGuard Perlite Recover Board or Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) or Min. 1.5-inch EnergyGuard Composite (perlite) | hot asphalt | BS | GAF BUR. Note 15 | | -45.0* |
| **VENTING BASE SYSTEMS:** | | | | | | | | | | |
| CWF-5. | Existing Tectum | Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite (iso side up) | Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate | 1 per 3.0 ft$^2$ | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 1.5-inch EnergyGuard Composite (wood fiber) | hot asphalt | V-BS | GAF BUR. Note 15 | | -45.0* |
| CWF-6. | Existing Tectum | Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) | Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate | 1 per 2.0 ft$^2$ | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 1.5-inch EnergyGuard Composite (wood fiber) | hot asphalt | V-BS | GAF BUR. Note 15 | | -45.0* |
| CWF-7. | Existing Tectum | Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite (iso side up) | Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate | 1 per 2.0 ft$^2$ | Min. 1.0-inch EnergyGuard RA or RN | hot asphalt | V-BS | GAF BUR. Note 15 | | -45.0* |

## TABLE 5B: CEMENTITIOUS WOOD FIBER DECKS – REROOF (TEAR-OFF) OR RECOVER
## SYSTEM TYPE B-3: MECHANICALLY FASTENED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER

| System No. | Deck (Note 1) | Anchor Sheet | | | Insulation | | | Roof Cover (Note 15) | | | MDP (psf) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Type | Fastener (Note 11) | Attach | Base | Top | Attach (Notes 6,7,8) | Base | Ply | Cap | |
| **CONVENTIONAL SYSTEMS:** | | | | | | | | | | | |
| CWF-8. | Existing Tectum | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Drill-Tec Polymer Gyptec Fastener and Drill-Tec 3" Gyptec Plate | 6-inch o.c. at the 4-inch lap and 12-inch o.c. in two equally spaced, staggered center rows | (Optional) One or more layers, any combination, Min. 1.5-inch EnergyGuard RA or RN | Min. 1.5-inch EnergyGuard Composite (wood fiber), Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 0.25-inch Dens Deck, Dens Deck Prime | hot asphalt | BS | GAF BUR. Note 15 | | -45.0* |
| CWF-9. | Existing Tectum | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Drill-Tec Polymer Gyptec Fastener and Drill-Tec 3" Gyptec Plate | 6-inch o.c. at the 4-inch lap and 12-inch o.c. in two equally spaced, staggered center rows | (Optional) One or more layers, any combination, Min. 1.5-inch EnergyGuard RA or RN | Min. 1.5-inch EnergyGuard Composite (perlite), Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous), Min. 0.5-inch EnergyGuard Perlite Recover Board or Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | hot asphalt | BS | GAF BUR. Note 15 | | -45.0* |
| **VENTING BASE SYSTEMS:** | | | | | | | | | | | |
| CWF-10. | Existing Tectum | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Drill-Tec Polymer Gyptec Fastener and Drill-Tec 3" Gyptec Plate | 6-inch o.c. at the 4-inch lap and 12-inch o.c. in two equally spaced, staggered center rows | (Optional) One or more layers, any combination, Min. 1.5-inch EnergyGuard RA or RN | Min. 1.5-inch EnergyGuard RA or RN | hot asphalt | V-BS | GAF BUR. Note 15 | | -45.0* |
| CWF-11. | Existing Tectum | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Drill-Tec Polymer Gyptec Fastener and Drill-Tec 3" Gyptec Plate | 6-inch o.c. at the 4-inch lap and 12-inch o.c. in two equally spaced, staggered center rows | (Optional) One or more layers, any combination, Min. 1.5-inch EnergyGuard RA or RN | Min. 1.5-inch EnergyGuard Composite (wood fiber), Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 0.25-inch Dens Deck, Dens Deck Prime | hot asphalt | V-BS | GAF BUR. Note 15 | | -45.0* |

## TABLE 5C: CEMENTITIOUS WOOD FIBER DECKS –REROOF (TEAR-OFF) OR RECOVER
## SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

| System No. | Deck (Note 1) | Base Insulation Layer (Note 13) | | Top Insulation Layer | | | Roof Cover (Note 15) | | | MDP (psf) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Type | Attach | Type | Fastener (Note 11) | Attach | Base | Ply | Cap | |
| **CONVENTIONAL SYSTEMS:** | | | | | | | | | | |
| CWF-12. | Existing Tectum | (Optional) One or more layers, any combination | Loose laid | Min. 1.5-inch EnergyGuard Composite (iso side down) | Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate | 1 per 4.0 ft$^2$ | BS | GAF BUR. Note 15 | | -45.0* |

**TABLE 5C: CEMENTITIOUS WOOD FIBER DECKS –REROOF (TEAR-OFF) OR RECOVER**
**SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER**

| System No. | Deck (Note 1) | Base Insulation Layer (Note 13) | | Top Insulation Layer | | | Roof Cover (Note 15) | | | MDP (psf) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Type | Attach | Type | Fastener (Note 11) | Attach | Base | Ply | Cap | |
| CWF-13. | Existing Tectum | (Optional) One or more layers, any combination | Loose laid | Min. 1-inch Structodek High Density Fiberboard Roof Insulation | Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate | 1 per 4.0 ft$^2$ | BS | GAF BUR. Note 15 | | -45.0* |
| CWF-14. | Existing Tectum | (Optional) One or more layers, any combination | Loose laid | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation | Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate | 1 per 3.0 ft$^2$ | BS | GAF BUR. Note 15 | | -45.0* |
| CWF-15. | Existing Tectum | (Optional) One or more layers, any combination | Loose laid | Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) | Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate | 1 per 2.0 ft$^2$ | BS | GAF BUR. Note 15 | | -45.0* |
| **VENTING BASE SYSTEMS:** | | | | | | | | | | |
| CWF-16. | Existing Tectum | (Optional) One or more layers, any combination | Loose laid | Min. 1.5-inch EnergyGuard RA or RN | Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate | 1 per 3.0 ft$^2$ | V-BS | GAF BUR. Note 15 | | -45.0* |

**TABLE 5D: CEMENTITIOUS WOOD FIBER DECKS – REROOF (TEAR-OFF) OR RECOVER**
**SYSTEM TYPE D-2: INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER**

| System No. | Deck (Note 1) | Insulation Layer(s) (Note 13) | | Base Sheet | | | Roof Cover (Note 15) | | MDP (psf) |
|---|---|---|---|---|---|---|---|---|---|
| | | Type | Attach | Base | Fastener (Note 11) | Attach | Ply | Cap | |
| CWF-17. | Existing Tectum | One or more layers, any combination | Prelim Attach | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Drill-Tec Locking Impact Nail (min. 1.8-inch embedment) | 9-inch o.c. at the 2-inch lap and 18-inch o.c. in two equally spaced staggered center rows | GAF BUR. Note 15. (No V-BS) | | -45.0* |

**TABLE 5E: CEMENTITIOUS WOOD FIBER DECKS – REROOF (TEAR-OFF) OR RECOVER**
**SYSTEM TYPE E-2: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER**

| System No. | Deck (Note 1) | Base Sheet | | | Roof Cover (Note 15) | | MDP (psf) |
|---|---|---|---|---|---|---|---|
| | | Type | Fastener (Note 11) | Attach | Ply | Cap | |
| CWF-18. | Existing Tectum | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Drill-Tec Polymer Gyptec Fastener and Drill-Tec 3" Gyptec Plate | 6-inch o.c. at the 4-inch lap and 12-inch o.c. in two equally spaced, staggered center rows | GAF BUR. Note 15. (No V-BS) | | -45.0* |
| CWF-19. | Existing Tectum | GAFGLAS Ply 4, GAFGLAS Ply 4 M, Tri-Ply Ply 4 Ply Sheet, GAFGLAS FlexPly 6, GAFGLAS FlexPly 6 M, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Drill-Tec LD Fastener and Drill-Tec LD Plate | 7-inch o.c. at the 4-inch lap and 7-inch o.c. in two, equally spaced, staggered center rows | GAF BUR. Note 15. (No V-BS) | | -67.5 |
| CWF-20. | Existing Tectum | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Drill-Tec Locking Impact Nail (1.8-inch) | 9-inch o.c. at the 4-inch lap and 12-inch o.c. in two equally spaced, staggered center rows | GAF BUR. Note 15. (No V-BS) | | -82.5 |

| TABLE 6A: GYPSUM DECKS – REROOF (TEAR-OFF)<br>SYSTEM TYPE B-1: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| System No. | Deck (Note 1) | Base Insulation Layer | | | Top Insulation Layer | | Roof Cover (Note 15) | | | MDP (psf) |
| | | Type | Fastener (Note 11) | Attach | Type | Attach (Notes 6,7,8) | Base | Ply | Cap | |
| **CONVENTIONAL SYSTEMS:** | | | | | | | | | | |
| G-1. | Existing sound gypsum or gypsum plank | Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite (iso side up) | Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate (Field MCRF ≥ 270 lbf) | 1 per 3.0 ft$^2$ | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 1.5-inch EnergyGuard Composite (wood fiber) | hot asphalt | BS | GAF BUR. Note 15 | | -45.0* |
| G-2. | Existing sound gypsum or gypsum plank | Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite (iso side up) | Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate (Field MCRF ≥ 270 lbf) | 1 per 3.0 ft$^2$ | Min. 0.5-inch EnergyGuard Perlite Recover Board or Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) or Min. 1.5-inch EnergyGuard Composite (perlite) | hot asphalt | BS | GAF BUR. Note 15 | | -45.0* |
| G-3. | Existing sound gypsum or gypsum plank | Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) | Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate (Field MCRF ≥ 180 lbf) | 1 per 2.0 ft$^2$ | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 1.5-inch EnergyGuard Composite (wood fiber) | hot asphalt | BS | GAF BUR. Note 15 | | -45.0* |
| G-4. | Existing sound gypsum or gypsum plank | Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) | Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate (Field MCRF ≥ 180 lbf) | 1 per 2.0 ft$^2$ | Min. 0.5-inch EnergyGuard Perlite Recover Board or Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) or Min. 1.5-inch EnergyGuard Composite (perlite) | hot asphalt | BS | GAF BUR. Note 15 | | -45.0* |
| **VENTING BASE SYSTEMS:** | | | | | | | | | | |
| G-5. | Existing sound gypsum or gypsum plank | Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite (iso side up) | Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate (Field MCRF ≥ 270 lbf) | 1 per 3.0 ft$^2$ | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 1.5-inch EnergyGuard Composite (wood fiber) | hot asphalt | V-BS | GAF BUR. Note 15 | | -45.0* |
| G-6. | Existing sound gypsum or gypsum plank | Min. 1.5-inch EnergyGuard RA or RN or EnergyGuard Composite (iso side up) | Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate (Field MCRF ≥ 180 lbf) | 1 per 2.0 ft$^2$ | Min. 1.0-inch EnergyGuard RA or RN | hot asphalt | V-BS | GAF BUR. Note 15 | | -45.0* |
| G-7. | Existing sound gypsum or gypsum plank | Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) | Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate (Field MCRF ≥ 180 lbf) | 1 per 2.0 ft$^2$ | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 1.5-inch EnergyGuard Composite (wood fiber) | hot asphalt | V-BS | GAF BUR. Note 15 | | -45.0* |

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| TABLE 6B: GYPSUM DECKS – REROOF (TEAR-OFF)<br>SYSTEM TYPE B-3: MECHANICALLY FASTENED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| System No. | Deck (Note 1) | Anchor Sheet | | | Insulation | | | Roof Cover (Note 15) | | | MDP (psf) |
| | | Type | Fastener (Note 11) | Attach | Base | Top | Attach (Notes 6,7,8) | Base | Ply | Cap | |
| **CONVENTIONAL SYSTEMS:** | | | | | | | | | | | |
| G-8. | Existing sound gypsum or gypsum plank | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet | Min. 1.8-inch Drill-Tec Locking Impact Nail or Drill-Tec Base Sheet Fastener (1.2 in) (Field MCRF ≥ 105 lbf) | 9-inch o.c. at the 2-inch lap and 18-inch o.c. in two, equally spaced, staggered center rows | Min. 1.5-inch EnergyGuard | Min. 0.5-inch EnergyGuard Perlite Recover Board or min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) | hot asphalt | BS | GAF BUR. Note 15 | | -45.0* |
| G-9. | Existing sound gypsum or gypsum plank | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Drill-Tec CR 1.2-inch Base Sheet fasteners (Field MCRF ≥ 48 lbf) | 7-inch o.c. at the 2-inch lap and 7-inch o.c. in three staggered center rows | (Optional) One or more layers, any combination, Min. 1.5-inch EnergyGuard RA or RN | Min. 1.5-inch EnergyGuard Composite, Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous), Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or EnergyGuard Perlite Recover Board, or Min. 0.25-inch Dens Deck, Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | hot asphalt | BS | GAF BUR. Note 15 | | -52.5 |
| G-10. | Existing sound gypsum or gypsum plank | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Drill-Tec Locking Impact Nail (1.8-inch) (Field MCRF ≥ 140 lbf) | 9-inch o.c. at the 2-inch lap and 12-inch o.c. in two staggered center rows | (Optional) One or more layers, any combination, Min. 1.5-inch EnergyGuard RA or RN | Min. 1.5-inch EnergyGuard Composite, Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous), Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or EnergyGuard Perlite Recover Board, or Min. 0.25-inch Dens Deck, Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | hot asphalt | BS | GAF BUR. Note 15 | | -75.0 |
| **VENTING BASE SYSTEMS:** | | | | | | | | | | | |
| G-11. | Existing sound gypsum or gypsum plank | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Drill-Tec CR 1.2-inch Base Sheet fasteners (Field MCRF ≥ 48 lbf) | 7-inch o.c. at the 2-inch lap and 7-inch o.c. in three staggered center rows | (Optional) One or more layers, any combination, Min. 1.5-inch EnergyGuard RA or RN | Min. 1.5-inch EnergyGuard RA or RN or min. 0.25-inch Dens Deck | hot asphalt | V-BS | GAF BUR. Note 15 | | -52.5 |
| G-12. | Existing sound gypsum or gypsum plank | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Drill-Tec Locking Impact Nail (1.8-inch) (Field MCRF ≥ 112 lbf) | 9-inch o.c. at the 2-inch lap and 12-inch o.c. in two staggered center rows | (Optional) One or more layers, any combination, Min. 1.5-inch EnergyGuard RA or RN | Min. 1.5-inch EnergyGuard RA or RN | hot asphalt | V-BS | GAF BUR. Note 15 | | -60.0 |

| TABLE 6B: GYPSUM DECKS – REROOF (TEAR-OFF)<br>SYSTEM TYPE B-3: MECHANICALLY FASTENED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| System No. | Deck (Note 1) | Anchor Sheet | | | Insulation | | | Roof Cover (Note 15) | | | MDP (psf) |
| | | Type | Fastener (Note 11) | Attach | Base | Top | Attach (Notes 6,7,8) | Base | Ply | Cap | |
| G-13. | Existing sound gypsum or gypsum plank | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Drill-Tec Locking Impact Nail (1.8-inch) (Field MCRF ≥ 140 lbf) | 9-inch o.c. at the 2-inch lap and 12-inch o.c. in two staggered center rows | (Optional) One or more layers, any combination, Min. 1.5-inch EnergyGuard RA or RN | Min. 0.25-inch Dens Deck | hot asphalt | V-BS | GAF BUR. Note 15 | | -75.0 |

| TABLE 6C: GYPSUM DECKS - REROOF (TEAR-OFF)<br>SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| System No. | Deck (Note 1) | Base Insulation Layer (Note 13) | | Top Insulation Layer | | | Roof Cover (Note 15) | | | MDP (psf) |
| | | Type | Attach | Type | Fastener (Note 11) | Attach | Base | Ply | Cap | |
| **CONVENTIONAL SYSTEMS:** | | | | | | | | | | |
| G-14. | Existing sound gypsum or gypsum plank | (Optional) One or more layers, any combination | Loose laid | Min. 1.5-inch EnergyGuard Composite (iso side down) | Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate (Field MCRF ≥ 180 lbf) | 1 per 2.0 ft² | BS | GAF BUR. Note 15 | | -45.0* |
| G-15. | Existing sound gypsum or gypsum plank | (Optional) One or more layers, any combination | Loose laid | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation | Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate (Field MCRF ≥ 180 lbf) | 1 per 2.0 ft² | BS | GAF BUR. Note 15 | | -45.0* |
| G-16. | Existing sound gypsum or gypsum plank | (Optional) One or more layers, any combination | Loose laid | Min. 0.75-inch EnergyGuard Perlite Roof Insulation (homogeneous) | Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate (Field MCRF ≥ 180 lbf) | 1 per 2.0 ft² | BS | GAF BUR. Note 15 | | -45.0* |
| **VENTING BASE SYSTEMS:** | | | | | | | | | | |
| G-17. | Existing sound gypsum or gypsum plank | (Optional) One or more layers, any combination | Loose laid | Min. 1.5-inch EnergyGuard RA or RN | Drill-Tec Polymer Gyptec Fastener with Drill-Tec 3" Gyptec Plate (Field MCRF ≥ 180 lbf) | 1 per 2.0 ft² | V-BS | GAF BUR. Note 15 | | -45.0* |

| TABLE 6D: GYPSUM DECKS – REROOF (TEAR-OFF)<br>SYSTEM TYPE D-2: INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| System No. | Deck (Note 1) | Insulation Layer(s) (Note 13) | | Base Sheet | | | Roof Cover (Note 15) | | MDP (psf) |
| | | Type | Attach | Base | Fastener (Note 11) | Attach | Ply | Cap | |
| G-18. | Existing sound gypsum or gypsum plank | One or more layers, any combination | Prelim Attach | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Drill-Tec Locking Impact Nail (Field MCRF ≥ 105 lbf) | 9-inch o.c. at the 2-inch lap and 18-inch o.c. in two equally spaced staggered center rows | GAF BUR. Note 15. | | -45.0* |

| TABLE 6E: GYPSUM DECKS – REROOF (TEAR-OFF)<br>SYSTEM TYPE E-2: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER | | | | | | | |
|---|---|---|---|---|---|---|---|
| System No. | Deck (Note 1) | Base Sheet | | | Roof Cover (Note 15) | | MDP (psf) |
| | | Type | Fastener (Note 11) | Attach | Ply | Cap | |
| G-19. | Existing sound gypsum or gypsum plank | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Drill-Tec CR 1.2-inch Base Sheet fasteners (Field MCRF ≥ 41 lbf) | 7-inch o.c. at the 2-inch lap and 7-inch o.c. in three staggered center rows | GAF BUR. Note 15. | | -45.0 |
| G-20. | Existing sound gypsum or gypsum plank | GAFGLAS Ply 4, GAFGLAS Ply 4 M, Tri-Ply Ply 4 Ply Sheet, GAFGLAS FlexPly 6, GAFGLAS FlexPly 6 M, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Drill-Tec LD Fastener and Drill-Tec LD Plate (Field MCRF ≥ 77 lbf) | 7-inch o.c. at the 4-inch lap and 7-inch o.c. in two, equally spaced, staggered center rows | GAF BUR. Note 15. | | -67.5 |
| G-21. | Existing sound gypsum or gypsum plank | GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet or Ruberoid 20 Smooth | Drill-Tec Locking Impact Nail (1.8-inch) (Field MCRF ≥ 140 lbf) | 9-inch o.c. at the 2-inch lap and 12-inch o.c. in two staggered center rows | GAF BUR. Note 15. | | -75.0 |

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

[A] The reported MDP documents the allowable maximum design pressure of the new insulation and roof cover when installed atop the substrate, irrespective of the deck type (See Note 1) or performance of the substrate (See Note 12). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.

| System No. | Substrate (Note 1 and Note 12) | Base Insulation Layer | | Top Insulation Layer | | Roof Cover (Note 15) | | | MDP (psf)[A] |
|---|---|---|---|---|---|---|---|---|---|
| | | Type | Attach (Notes 6,7,8) | Type | Attach (Notes 6,7,8) | Base | Ply | Cap | |
| **CONVENTIONAL SYSTEMS:** | | | | | | | | | |
| R-1. | Existing sand- or granule-surface modified bitumen or asphaltic built-up roof; (Optional) ASTM D41 primer | Max. 48 x 48 x min. 0.5-inch EnergyGuard Polyiso Insulation | hot asphalt | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation, EnergyGuard Perlite Recover Board, min. 0.75-inch EnergyGuard Perlite Roof Insulation, min. 0.25-inch SECUROCK Gypsum Fiber Roof Board, Dens Deck, Dens Deck Prime | hot asphalt | BS | GAF BUR. Note 15. | | -150.0* |
| R-2. | Existing smooth-surface asphaltic built-up roof | Max. 48 x 48 x min. 0.5-inch EnergyGuard Polyiso Insulation | LRF-M | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation, EnergyGuard Perlite Recover Board, min. 0.75-inch EnergyGuard Perlite Roof Insulation, min. 0.25-inch SECUROCK Gypsum Fiber Roof Board, Dens Deck, Dens Deck Prime | hot asphalt | BS | GAF BUR. Note 15. | | -75.0* |
| R-3. | Existing smooth-surface asphaltic built-up roof | Max. 48 x 48 x min. 0.5-inch EnergyGuard Polyiso Insulation | LRF-M | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or min. 0.25-inch SECUROCK Gypsum Fiber Roof Board, Dens Deck, Dens Deck Prime | LRF-M | BS | GAF BUR. Note 15. | | -75.0* |
| R-4. | Existing sand- or granule-surface modified bitumen or asphaltic built-up roof | Max. 48 x 48 x min. 0.5-inch EnergyGuard Polyiso Insulation | LRF-M | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation, EnergyGuard Perlite Recover Board, min. 0.75-inch EnergyGuard Perlite Roof Insulation, min. 0.25-inch SECUROCK Gypsum Fiber Roof Board, Dens Deck, Dens Deck Prime | hot asphalt | BS | GAF BUR. Note 15. | | -150.0* |
| R-5. | Existing sand- or granule-surface modified bitumen or asphaltic built-up roof | Max. 48 x 48 x min. 0.5-inch EnergyGuard Polyiso Insulation | LRF-M | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or min. 0.25-inch SECUROCK Gypsum Fiber Roof Board, Dens Deck, Dens Deck Prime | LRF-M | BS | GAF BUR. Note 15. | | -150.0* |
| R-6. | Existing smooth- or granule-surface asphalt BUR or SBS modified bitumen or granule-surface APP modified bitumen | Min. 1.5-inch EnergyGuard Polyiso Insulation | LRF-M Canister | Insulation: (Optional) Additional layer(s) base insulation. Coverboard: Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | LRF-M Canister | BS | GAF BUR. Note 15. | | -202.5* |
| R-7. | Existing asphaltic built-up roof | (Optional) Min. 1.5-inch EnergyGuard RA | LRF-XF | Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board | LRF-XF | BS | GAF BUR. Note 15. | | -240.0* |
| R-8. | Existing asphaltic built-up roof | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation | OB500 | None | N/A | BS | GAF BUR. Note 15. | | -120.0* |
| R-9. | Existing asphaltic built-up roof | Min. 1.5-inch EnergyGuard RA or RN | OB500 | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation | OB500 | BS | GAF BUR. Note 15. | | -120.0* |
| R-10. | Existing asphaltic built-up roof | Min. 1.5-inch EnergyGuard RA or RN | OB500 | Min. 0.25-inch Dens Deck or Dens Deck Prime | OB500 | BS | GAF BUR. Note 15. | | -120.0* |

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| TABLE 7A: RECOVER APPLICATIONS<br>SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| [A] The reported MDP documents the allowable maximum design pressure of the new insulation and roof cover when installed atop the substrate, irrespective of the deck type (See Note 1) or performance of the substrate (See Note 12). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction. | | | | | | | | | |
| **System No.** | **Substrate (Note 1 and Note 12)** | **Base Insulation Layer** | | **Top Insulation Layer** | | **Roof Cover (Note 15)** | | | **MDP (psf)[A]** |
| | | **Type** | **Attach (Notes 6,7,8)** | **Type** | **Attach (Notes 6,7,8)** | **Base** | **Ply** | **Cap** | |
| R-11. | Existing asphaltic built-up roof | Min. 1.5-inch EnergyGuard RA or RN | OB500 | Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board | OB500 | BS | GAF BUR. Note 15. | | -120.0* |
| R-12. | Existing sand-surface APP modified bitumen or asphaltic built-up roof | Max. 48 x 48 x min. 0.5-inch EnergyGuard Polyiso Insulation | OB500 | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation, EnergyGuard Perlite Recover Board, min. 0.75-inch EnergyGuard Perlite Roof Insulation, min. 0.25-inch SECUROCK Gypsum Fiber Roof Board, Dens Deck, Dens Deck Prime | hot asphalt | BS | GAF BUR. Note 15. | | -150.0* |
| R-13. | Existing sand- or granule-surface modified bitumen or asphaltic built-up roof | Max. 48 x 48 x min. 0.5-inch EnergyGuard Polyiso Insulation | OB500 | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation, EnergyGuard Perlite Recover Board, min. 0.75-inch EnergyGuard Perlite Roof Insulation, min. 0.25-inch SECUROCK Gypsum Fiber Roof Board, Dens Deck, Dens Deck Prime | hot asphalt | BS | GAF BUR. Note 15. | | -150.0* |
| R-14. | Existing sand- or granule-surface modified bitumen or asphaltic built-up roof | Max. 48 x 48 x min. 0.5-inch EnergyGuard Polyiso Insulation | OB500 | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or min. 0.25-inch SECUROCK Gypsum Fiber Roof Board, Dens Deck, Dens Deck Prime | OB500 | BS | GAF BUR. Note 15. | | -150.0* |
| R-15. | Existing sand-surface APP modified bitumen or asphaltic built-up roof | Max. 48 x 48 x min. 0.5-inch EnergyGuard Polyiso Insulation | OB500 | Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or min. 0.25-inch SECUROCK Gypsum Fiber Roof Board, Dens Deck, Dens Deck Prime | OB500 | BS | GAF BUR. Note 15. | | -150.0* |
| **VENTING BASE SYSTEMS:** | | | | | | | | | |
| R-16. | Existing sand- or granule-surface modified bitumen or asphaltic built-up roof; (Optional) ASTM D41 primer | Max. 48 x 48 x min. 0.5-inch EnergyGuard Polyiso Insulation | hot asphalt | None | N/A | V-BS | GAF BUR. Note 15. | | -150.0* |
| R-17. | Existing smooth-surface asphaltic built-up roof | Max. 48 x 48 x min. 0.5-inch EnergyGuard Polyiso Insulation | LRF-M | None | N/A | V-BS | GAF BUR. Note 15. | | -75.0* |
| R-18. | Existing sand- or granule-surface modified bitumen or asphaltic built-up roof | Max. 48 x 48 x min. 0.5-inch EnergyGuard Polyiso Insulation | LRF-M | None | N/A | V-BS | GAF BUR. Note 15. | | -225.0* |
| R-19. | Existing smooth- or granule-surface asphalt BUR or SBS modified bitumen or granule-surface APP modified bitumen | Min. 1.5-inch EnergyGuard Polyiso Insulation | LRF-M Canister | Insulation: (Optional) Additional layer(s) base insulation. | LRF-M Canister | V-BS | GAF BUR. Note 15. | | -150.0* |

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

[A] The reported MDP documents the allowable maximum design pressure of the new insulation and roof cover when installed atop the substrate, irrespective of the deck type (See Note 1) or performance of the substrate (See Note 12). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.

| System No. | Substrate (Note 1 and Note 12) | Base Insulation Layer | | Top Insulation Layer | | Roof Cover (Note 15) | | | MDP (psf)[A] |
|---|---|---|---|---|---|---|---|---|---|
| | | Type | Attach (Notes 6,7,8) | Type | Attach (Notes 6,7,8) | Base | Ply | Cap | |
| R-20. | Existing smooth- or granule-surface asphalt BUR or SBS modified bitumen or granule-surface APP modified bitumen | Min. 1.5-inch EnergyGuard Polyiso Insulation | LRF-M Canister | Insulation: (Optional) Additional layer(s) base insulation. Coverboard: Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board | LRF-M Canister | V-BS | GAF BUR. Note 15. | | -202.5* |
| R-21. | Existing sand- or granule-surface modified bitumen or asphaltic built-up roof | Max. 48 x 48 x min. 0.5-inch EnergyGuard Polyiso Insulation | OB500 | None | N/A | V-BS | GAF BUR. Note 15. | | -225.0* |

## TABLE 7B: RECOVER APPLICATIONS
## SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER

[A] The reported MDP documents the allowable maximum design pressure of the new roof cover when adhered to the substrate, irrespective of the deck type (See Note 1) or performance of the substrate (See Note 12). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.

| System No. | Substrate (Note 1 and Note 12) | Roof Cover (Note 15) | | | MDP (psf)[A] |
|---|---|---|---|---|---|
| | | Base | Ply | Cap | |
| R-22. | Existing asphaltic built-up roof | V-BS | GAF BUR. Note 15. | | -60.0* |