



NEMO EVALUATIONS REPORT

Report No.: NER-CTR-002.R3
Revision 3: 2025-12-16
Page 1 of 19

CertainTeed, LLC
FL11288-R26

Nemo|cert.
353 Christian Street, Unit 12b
Oxford, CT 06478
(475) 888-CERT (2378)
www.nemocert.com

INSPECT

CERTIFY

EVALUATE

VALIDATE

QUALIFY

NEMO EVALUATION REPORT (NER)



CertainTeed, LLC
20 Moores Road
Malvern, PA 19355
(610) 893-5400

SUBJECT: CertainTeed Roof Underlayments

SCOPE: This NEMO Evaluation Report (henceforth 'NER') is issued under F.A.C. [Rule 61G20-3](#) and the applicable rules and regulations governing Product Approval of construction materials in the State of Florida and ISO/IEC 17065 via [NEMO|cert.](#) NEMO Evaluations has evaluated the product described herein for compliance with the [Code sections noted herein](#).

CODE: 2018 and 2021 International Building Code TDI [Third-Party Evaluation Report](#) acceptance
2021 International Residential Code
2023 Florida Building Code, 8th Edition
2023 Florida Building Code, Residential, 8th Edition

JURISDICTION: Non-HVHZ and HVHZ

CATEGORY: **FBC:** Roofing **NEMO:** Steep Slope

SUB-CATEGORY: **FBC:** Underlayment

CSI DIVISION: 07 00 00 Thermal and Moisture Protection
07 30 05 Roofing Felt and Underlayment

METHOD: Method 1, Option C – Codified Material, Evaluation by Evaluation Entity

COMPLIANCE STATEMENT: **CertainTeed Roof Underlayments**, as produced by **CertainTeed, LLC**, have demonstrated compliance with the [Code sections noted herein](#) through testing in accordance with the referenced Standards, rational analysis and an ongoing quality assurance program. Compliance is subject to the [Installation Requirements](#) and [Limitations of Use](#) set forth herein.

QUALITY ASSURANCE: Evidence of current quality assurance shall be listing and/or labeling in accordance with the requirements of [NEMO|cert.](#)

CONTINUED COMPLIANCE: This NER is valid until such time the named product(s) change, the referenced Quality Assurance changes, or the evaluated Code provisions change. NEMO Evaluations require, at minimum, a complete review of this NER with each 3-year Code Cycle.

BUILDING PERMIT REQUIREMENTS: As required by the Building Official or Authority Having Jurisdiction to evaluate the installation of this product.

ADVERTISEMENT: "NEMO Evaluated" may be displayed in advertising literature. If any portion of the NER is displayed, it shall be displayed in its entirety.

CERTIFICATION OF INDEPENDENCE: ✓ NEMO CERT, 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.
✓ NEMO CERT, LLC is not owned, operated or controlled by any company manufacturing or distributing products it evaluates.
✓ This is a building code evaluation. NEMO CERT, LLC is not, in any way, the Designer of Record for any project on which this NER, or previous versions thereof, is/was used for permitting or design guidance.





NEMO EVALUATIONS REPORT

Report No.: NER-CTR-002.R3
 Revision 3: 2025-12-16
 Page 2 of 19

CertainTeed, LLC
 FL11288-R26



1. CODES, PROPERTIES AND STANDARDS:

| CODE | SECTION | PROPERTY | STANDARD |
|-----------------------------------------------------------------------|---------------------------------------------------------------------|----------------------------------|-------------------|
| 2018 International Building Code, 2021 International Building Code | 1507.1.1, 1507.2.8.2, 1507.3.9, 1507.5.7, 1507.8.8, 1507.9.9 | Material standard | ASTM D1970 |
| | 1507.11.2 | Material standard | ASTM D6163 |
| | 1507.11.2 | Material standard | ASTM D6164 |
| | 1507.11.2 | Material standard | ASTM D6222 |
| 2021 International Building Code, Residential | R905.1.1, R905.2.8.2 | Material standard | ASTM D1970 |
| | R905.11.2 | Material standard | ASTM D6163 |
| | R905.11.2 | Material standard | ASTM D6164 |
| | R905.11.2 | Material standard | ASTM D6222 |
| 2023 Florida Building Code, 8 th Edition | 1504.2.1.4 | Wind resistance | UL 1897 |
| | 1507.1.1, 1507.2.9.2, 1507.2.9.3, 1518.2, TAS 110 | Material standard | ASTM D1970 |
| | 1507.3.3 | Material standard | FRSA/TRI Manual |
| | 1507.10.2, TAS 110 | Material standard | ASTM D4601 |
| | 1507.11.2, TAS 110 | Material standard | ASTM D6163 |
| | 1507.11.2, TAS 110 | Material standard | ASTM D6164 |
| | 1507.11.2, TAS 110 | Material standard | ASTM D6222 |
| | 1523.6.5.2.1, TAS 110 | Material standard | TAS 103 |
| | TAS 110 | Accelerated Weathering | ASTM D4798 |
| | 2023 Florida Building Code, Residential, 8 th Edition | R905.1.1, R905.2.8.2, R905.2.8.5 | Material standard |
| R905.3.3 | | Material standard | FRSA/TRI Manual |
| R905.11.2 | | Material standard | ASTM D6163 |
| R905.11.2 | | Material standard | ASTM D6164 |
| R905.11.2 | | Material standard | ASTM D6222 |



NEMO EVALUATIONS REPORT

Report No.: NER-CTR-002.R3
 Revision 3: 2025-12-16
 Page 3 of 19

CertainTeed, LLC
 FL11288-R26



2. PRODUCTS:

| TABLE 1A: EVALUATED UNDERLAYMENTS | | |
|-------------------------------------------------------------------------------------------------------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <i>(NEMO Certified. Consult Directory of Certified Products for production location(s))</i> | | |
| PRODUCT | MATERIAL STANDARD | DESCRIPTION |
| Black Diamond® Base Sheet | ASTM D1970 | Heat-activated, self-adhering, glass-mat reinforced, slag-surfaced, SBS modified bitumen roof underlayment or base ply membrane |
| All Weather/Empire® Base Sheet | ASTM D4601 | Mechanically attached, glass-mat reinforced, mineral-surfaced, SBS modified bitumen base sheet for use in multi-ply underlayment systems |
| Glasbase™ Base Sheet | ASTM D4601 | Mechanically attached, glass-mat reinforced, mineral-surfaced, asphaltic base sheet for use in multi-ply underlayment systems |
| Flintlastic® SA NailBase | ASTM D4601 | Mechanically attached, glass-mat reinforced, film-surfaced, SBS modified bitumen base sheet for use in multi-ply underlayment systems |
| Flintlastic® SA MidPly | ASTM D6163 | Self-adhering, glass-mat reinforced, film-surfaced, SBS modified bitumen base ply membrane for use in multi-ply underlayment systems |
| Flintlastic® SA PlyBase | ASTM D1970 | Self-adhering, glass-mat reinforced, film-surfaced, SBS modified bitumen base ply membrane for use in multi-ply underlayment systems |
| Flintlastic® Ultra Glass SA | ASTM D6163 | Self-adhering, glass-mat reinforced, mineral-surfaced, SBS modified bitumen base ply membrane for use in multi-ply underlayment systems |
| Flintlastic® SA Cap | ASTM D6164 TAS 110 | Self-adhering, polyester reinforced, granule-surfaced, SBS modified bitumen cap ply membrane for use in multi-ply underlayment systems |
| Flintlastic® GMS | ASTM D6164 TAS 110 | Asphalt-applied, polyester reinforced, granule-surfaced, SBS modified bitumen cap ply membrane for use in multi-ply underlayment systems |
| Flintlastic® SA Cap FR | ASTM D6163 | Self-adhering, glass-mat reinforced, granule-surfaced, SBS modified bitumen cap ply membrane for use in multi-ply underlayment systems |
| Flintlastic® GTA | ASTM D6222 | Torch-applied, polyester reinforced, granule-surfaced, APP modified bitumen cap ply membrane for use in multi-ply underlayment systems |
| WinterGuard® Granular | ASTM D1970 TAS 110 | Self-adhering, glass-mat reinforced, granule-surfaced, SBS modified bitumen roof underlayment |
| WinterGuard® Sand | ASTM D1970 TAS 110 | Self-adhering, glass-mat reinforced, sand-surfaced, SBS modified bitumen roof underlayment |

| TABLE 1B: EVALUATED UNDERLAYMENTS | | |
|--------------------------------------------------------------------------------------------------------------------------------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| <i>(Contact contact@nemocert.com for production location(s) of non-Certified products)</i> | | |
| PRODUCT | MATERIAL STANDARD | DESCRIPTION |
| MetaLayment® | ASTM D1970 | Self-adhering, glass-mat reinforced, film-surfaced, SBS modified bitumen roof underlayment |
| WinterGuard® HT | ASTM D1970 | Self-adhering, glass-scrim reinforced, film-surfaced, SBS modified bitumen roof underlayment |
| Flintlastic® SA Cap | ASTM D1970 TAS 103 | Self-adhering, polyester reinforced, granule-surfaced, SBS modified bitumen cap ply membrane for use in multi-ply underlayment systems |



NEMO EVALUATIONS REPORT

Report No.: NER-CTR-002.R3
Revision 3: 2025-12-16
Page 4 of 19

CertainTeed, LLC
FL11288-R26



3. INSTALLATION:

- 3.1 Unless otherwise noted, the term “**CertainTeed Roof Underlayments**” herein includes the following products:
Black Diamond Base Sheet, MetaLayment, WinterGuard Granular, WinterGuard HT, WinterGuard Sand, Flintlastic SA Cap or Flintlastic SA Cap FR
- 3.2 **CertainTeed Roof Underlayments** shall be installed in accordance with **CertainTeed, LLC** published installation instructions, subject to the [Limitations of Use](#) noted herein. In case of conflict between published installation instructions and this NER, this NER governs.
- 3.2.1 The report holder’s installation instructions shall be made available at the jobsite at all times during installation.
- 3.3 Substrates shall be in accordance with codified requirements to the satisfaction of the Authority Having Jurisdiction. Re-fasten any loose decking panels, and check for protruding nail heads. Sweep the substrate thoroughly to remove any dust and debris prior to application, and prime the substrate (if applicable).
- 3.4 **IBC and IRC:**
- 3.4.1 **CertainTeed Roof Underlayments** shall be installed in compliance with the applicable code, this NER and the report holder’s published installation instructions.
- 3.4.2 **Ice Barrier:**
When used as an ice barrier, **CertainTeed Roof Underlayments** shall be installed in sufficient courses to extend upslope a minimum of 24-inches beyond the exterior wall plane (Reference: IBC 1507.1.2 or IRC R905.1.2). Subsequently installed roof underlayments shall overlap the ice barrier.
- 3.4.3 **Roof Underlayment:**
IBC: When used as a roof underlayment, **CertainTeed Roof Underlayments** may be installed as an alternate to the codified ASTM D226 Type I or II underlayments prescribed in IBC 1507.1.1, but the products are self-adhering, and do not require mechanical attachment.
IRC: When used as a roof underlayment, **CertainTeed Roof Underlayments** may be installed in accordance with IRC R905.1.1 Exception 1.
When **CertainTeed Roof Underlayments** are installed atop a base sheet of ASTM D226 or ASTM D4869 underlayment, the base sheet shall be attached in accordance with IBC Table 1507.1.1(3) or IRC Table R905.1.1(3).
Refer to [Table 2A](#) herein for allowable roof covers and [Table 3](#) herein for allowable substrates.
- 3.4.4 **Joint-Strips:**
Min. 4-inch wide strips of **CertainTeed Roof Underlayments** may be installed in accordance with IBC 1507.1.1 Exception 1 or IRC R905.1.1 Exception 2.
- 3.4.5 **Flashing:**
CertainTeed Roof Underlayments may be used as flashing material where use of an ASTM D1970 compliant material is prescribed in IBC Chapter 15 or IRC Chapter 9. Flashing shall be installed in a water-shedding condition. When installed in concert with metal drip edge, **CertainTeed Roof Underlayments** shall be installed atop eave metal and beneath rake metal.



NEMO EVALUATIONS REPORT

Report No.: NER-CTR-002.R3
Revision 3: 2025-12-16
Page 5 of 19

CertainTeed, LLC
FL11288-R26



3.5 FBC (non-HVHZ) and FBC Residential:

3.5.1 Refer to Section 3.4.2 herein for underlayments having prescriptive codified minimum attachment requirements or [Section 4.7.2](#) herein for underlayment systems having maximum design pressures established in accordance with FBC [1504.2.1.4](#).

3.5.2 Prescriptive Underlayment Systems for use in NON-TILE applications:

3.5.2.1 **CODE REFERENCE:** 1507.1.1.1 or R905.1.1.1, Option 1:
APPLICATION: Underlayment adhered to deck

DECK DESCRIPTION: Code-minimum wood or structural concrete deck to the satisfaction of the Authority Having Jurisdiction (refer to [Table 3](#) herein for specific underlayment/substrate combinations)

UNDERLAYMENT: **CertainTeed Roof Underlayment (See 3.1)** self-adhered in accordance with FBC Section 1507.1.1.1(1) or R905.1.1.1(1) and back-nailed in accordance with the manufacturer's requirements.

SURFACING: FBC Approved asphalt shingles, metal roof panels or metal shingles, slate or slate type shingles, subject to the allowable roof covers in [Table 2B](#) herein.

3.5.2.2 **CODE REFERENCE:** 1507.1.1.1 or R905.1.1.1, Option 1 combined with Option 2 or 3:
APPLICATION: Optional self-adhering strips to deck-joints followed by base sheet mechanically fastened to deck followed by underlayment adhered to base sheet

DECK DESCRIPTION: Code-minimum wood deck to the satisfaction of the Authority Having Jurisdiction

SECONDARY WATER BARRIER: (Optional) Min. 3 ¼-inch wide strips of **MetaLayment, WinterGuard HT or WinterGuard Sand** self-adhered over joints of the roof deck prior to installation of subsequent layer(s) in accordance with FBC Section 1507.1.1.1(2) or R905.1.1.1(2). Do not overlap end-joints or T-joints. All end-joints and T-joints shall be butted firmly side by side, flush with each other but not overlapped.

BASE SHEET: One (1) layer of **All Weather/Empire Base Sheet, Glasbase Base Sheet** or FBC Approved, ASTM D226 Type II or ASTM D4869 Type III or IV in accordance with FBC Table 1507.1.1.1 or Table R905.1.1.1, with a minimum 4-inch side lap and 6-inch end lap or two (2) layers of **All Weather/Empire Base Sheet, Glasbase Base Sheet** or FBC Approved, ASTM D226 Type II or ASTM D4869 Type III or IV in accordance with FBC Section 1507.1.1.1(3) or R905.1.1.1(3), mechanically fastened to deck

FASTENERS: Min. 0.083-inch diameter annular ring or deformed shank nails with metal or plastic caps* with a nominal cap diameter of not less than 1-inch and minimum thickness as follows.
The nail shall be of sufficient length to penetrate through the roof sheathing, or not less than 0.75-inch into the roof sheathing.

*Metal caps are required where the ultimate design wind speed, V_{ult} , equals or exceeds 170 mph.

| Cap Type | Minimum thickness |
|------------------------|-------------------------------------|
| Metal cap | 32 ga. sheet metal |
| Power-driven metal cap | 0.010-inch |
| Plastic cap | 0.035-inch (outside edge thickness) |

FASTENING: Grid pattern of 12-inches between the overlaps and 6-inch spacing at the overlaps, in accordance with FBC Table 1507.1.1.1 or Table R905.1.1.1.

UNDERLAYMENT: **CertainTeed Roof Underlayment (See 3.1)** self-adhered in accordance with FBC Section 1507.1.1.1(1) or R905.1.1.1(1) and back-nailed in accordance with the manufacturer's requirements.

SURFACING: FBC Approved asphalt shingles, metal roof panels or metal shingles, slate or slate type shingles or photovoltaic shingles subject to the allowable roof covers in [Table 2B](#) herein.



NEMO EVALUATIONS REPORT

Report No.: NER-CTR-002.R3
Revision 3: 2025-12-16
Page 6 of 19

CertainTeed, LLC
FL11288-R26



3.5.2.3

| | |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| CODE REFERENCE: | 1507.1.1.1 or R905.1.1.1, Option 1 combined with Option 2: |
| APPLICATION: | Optional self-adhering strips to deck-joints followed by base sheet mechanically fastened to deck followed by underlayment adhered to base sheet |

| DECK DESCRIPTION: | Code-minimum wood deck to the satisfaction of the Authority Having Jurisdiction | | | | | | | | |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------|-----------|--------------------|------------------------|------------|-------------|-------------------------------------|
| SECONDARY WATER BARRIER: | (Optional) Min. 3 3/4-inch wide strips of MetaLayment, WinterGuard HT or WinterGuard Sand self-adhered over joints of the roof deck prior to installation of subsequent layer(s) in accordance with FBC Section 1507.1.1.1(2) or R905.1.1.1(2). Do not overlap end-joints or T-joints. All end-joints and T-joints shall be butted firmly side by side, flush with each other but not overlapped. | | | | | | | | |
| THERMAL BARRIER: | (Optional) One (1) or two (2) layers All Weather/Empire Base Sheet, Glasbase Base Sheet or FBC Approved, ASTM D4601 Type II with a minimum 4-inch side lap and 6-inch end lap, preliminarily attached to hold in place. | | | | | | | | |
| BASE SHEET: | One (1) layer of Flintlastic SA NailBase in accordance with FBC Table 1507.1.1.1 or Table R905.1.1.1, with a minimum 4-inch side lap and 6-inch end lap, mechanically fastened to deck | | | | | | | | |
| FASTENERS: | Min. 0.083-inch diameter annular ring or deformed shank nails with metal or plastic caps* with a nominal cap diameter of not less than 1-inch and minimum thickness as follows. The nail shall be of sufficient length to penetrate through the roof sheathing, or not less than 0.75-inch into the roof sheathing. *Metal caps are required where the ultimate design wind speed, V_{ult} , equals or exceeds 170 mph. | | | | | | | | |
| | <table> <thead> <tr> <th><u>Cap Type</u></th> <th><u>Minimum thickness</u></th> </tr> </thead> <tbody> <tr> <td>Metal cap</td> <td>32 ga. sheet metal</td> </tr> <tr> <td>Power-driven metal cap</td> <td>0.010-inch</td> </tr> <tr> <td>Plastic cap</td> <td>0.035-inch (outside edge thickness)</td> </tr> </tbody> </table> | <u>Cap Type</u> | <u>Minimum thickness</u> | Metal cap | 32 ga. sheet metal | Power-driven metal cap | 0.010-inch | Plastic cap | 0.035-inch (outside edge thickness) |
| <u>Cap Type</u> | <u>Minimum thickness</u> | | | | | | | | |
| Metal cap | 32 ga. sheet metal | | | | | | | | |
| Power-driven metal cap | 0.010-inch | | | | | | | | |
| Plastic cap | 0.035-inch (outside edge thickness) | | | | | | | | |
| FASTENING: | Grid pattern of 12-inches between the overlaps and 6-inch spacing at the overlaps, in accordance with FBC Table 1507.1.1.1 or Table R905.1.1.1. | | | | | | | | |
| UNDERLAYMENT: | <p>Base Ply: (Optional) Flintlastic SA MidPly or Flintlastic SA PlyBase, self-adhered in accordance with FBC Section 1507.1.1.1(1) or R905.1.1.1(1) and back-nailed in accordance with the manufacturer's requirements.</p> <p>Cap Ply: Flintlastic SA Cap FR or Flintlastic SA Cap self-adhered in accordance with FBC Section 1507.1.1.1(1) or R905.1.1.1(1) and back-nailed in accordance with the manufacturer's requirements.</p> | | | | | | | | |
| SURFACING: | FBC Approved asphalt shingles, slate or slate type shingles, subject to the allowable roof covers in Table 2B herein. | | | | | | | | |



NEMO EVALUATIONS REPORT

Report No.: NER-CTR-002.R3
Revision 3: 2025-12-16
Page 7 of 19

CertainTeed, LLC
FL11288-R26



3.6 FBC HVHZ (Broward and Miami-Dade Counties):

3.6.1 Refer to Section 3.6.2 herein for underlayments having prescriptive codified minimum attachment requirements or [Section 4.7.2](#) herein for underlayment systems having maximum design pressures established in accordance with [TAS 103](#).

3.6.2 Prescriptive Underlayment Systems for use in NON-TILE applications:

3.6.2.1 **CODE REFERENCE: 1518.2.1, Option 1:**
APPLICATION: Underlayment adhered to deck

DECK DESCRIPTION: Code-minimum wood or structural concrete deck to the satisfaction of the Authority Having Jurisdiction (refer to [Table 3](#) herein for specific underlayment/substrate combinations)

UNDERLAYMENT: **CertainTeed Roof Underlayment (See 3.1)** self-adhered in accordance with FBC Section 1518.2.1(1) and back-nailed max. 12-inch o.c. using FBC HVHZ Approved nails and tin caps (FBC HVHZ [1517.5](#)) or FBC HVHZ Approved concrete fasteners and plates.

SURFACING: FBC HVHZ Approved asphalt shingles, metal roof panels or metal shingles, slate or slate type shingles, subject to the allowable roof covers in [Table 2B](#) herein.

3.6.2.2 **CODE REFERENCE: 1518.2.1, Option 1 combined with Option 2 or 3:**
APPLICATION: Optional self-adhering strips to deck-joints followed by base sheet mechanically fastened to deck followed by underlayment adhered to base sheet

DECK DESCRIPTION: Code-minimum wood deck to the satisfaction of the Authority Having Jurisdiction

SECONDARY WATER BARRIER: (Optional) Min. 3 3/4-inch wide strips of **MetaLayment, WinterGuard HT or WinterGuard Sand** self-adhered over joints of the roof deck prior to installation of subsequent layer(s) in accordance with FBC Section 1518.2.1(2). Do not overlap end-joints or T-joints. All end-joints and T-joints shall be butted firmly side by side, flush with each other but not overlapped.

BASE SHEET: One (1) layer of **All Weather/Empire Base Sheet, Glasbase Base Sheet** or FBC Approved, ASTM D226 Type II or ASTM D4869 Type III or IV in accordance with FBC Table 1518.2.1, with a minimum 4-inch side lap and 6-inch end lap or two (2) layers of **All Weather/Empire Base Sheet, Glasbase Base Sheet** or FBC Approved, ASTM D226 Type II or ASTM D4869 Type III or IV in accordance with FBC Section 1518.2.1(3), mechanically fastened to deck

FASTENING: FBC HVHZ Approved nails and tin caps (FBC HVHZ [1517.5](#)), grid pattern of 12-inches between the overlaps and 6-inch spacing at the overlaps, in accordance with FBC Table 1518.2.1 or FBC Section 1518.2.1(3).

UNDERLAYMENT: **CertainTeed Roof Underlayment (See 3.1)** self-adhered in accordance with FBC Section 1518.2.1(1) and back-nailed max. 12-inch o.c. using FBC HVHZ Approved nails and tin caps (FBC HVHZ [1517.5](#)).

SURFACING: FBC HVHZ Approved asphalt shingles, metal roof panels or metal shingles, slate or slate type shingles or photovoltaic shingles, subject to the allowable roof covers in [Table 2B](#) herein.



NEMO EVALUATIONS REPORT

Report No.: NER-CTR-002.R3
Revision 3: 2025-12-16
Page 8 of 19

CertainTeed, LLC
FL11288-R26



| | | |
|---------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3.6.2.3 | CODE REFERENCE: | 1518.2.1, Option 1 combined with Option 2: |
| | APPLICATION: | Optional self-adhering strips to deck-joints followed by base sheet mechanically fastened to deck followed by underlayment adhered to base sheet |
| | DECK DESCRIPTION: | Code-minimum wood deck to the satisfaction of the Authority Having Jurisdiction |
| | SECONDARY WATER BARRIER: | (Optional) Min. 3 3/4-inch wide strips of MetaLayment, WinterGuard HT or WinterGuard Sand self-adhered over joints of the roof deck prior to installation of subsequent layer(s) in accordance with FBC Section 1518.2.1(2). Do not overlap end-joints or T-joints. All end-joints and T-joints shall be butted firmly side by side, flush with each other but not overlapped. |
| | THERMAL BARRIER: | (Optional) One (1) or two (2) layers All Weather/Empire Base Sheet, Glasbase Base Sheet or FBC Approved, ASTM D4601 Type II with a minimum 4-inch side lap and 6-inch end lap, preliminarily attached to hold in place. |
| | BASE SHEET: | One (1) layer of Flintlastic SA NailBase in accordance with FBC Table 1518.2.1, with a minimum 4-inch side lap and 6-inch end lap, mechanically fastened to deck |
| | FASTENING: | FBC HVHZ Approved nails and tin caps (FBC HVHZ 1517.5), grid pattern of 12-inches between the overlaps and 6-inch spacing at the overlaps, in accordance with FBC Table 1518.2.1 or FBC Section 1518.2.1(3). |
| | UNDERLAYMENT: | Base Ply: (Optional) Flintlastic SA MidPly or Flintlastic SA PlyBase , self-adhered in accordance with FBC Section 1518.2.1(1) and back-nailed max. 12-inch o.c. using FBC HVHZ Approved nails and tin caps (FBC HVHZ 1517.5). Cap Ply: Flintlastic SA Cap FR or Flintlastic SA Cap self-adhered in accordance with FBC Section 1518.2.1(1) and back-nailed max. 12-inch o.c. using FBC HVHZ Approved nails and tin caps (FBC HVHZ 1517.5). |
| | SURFACING: | FBC HVHZ Approved asphalt shingles, slate or slate type shingles, subject to the allowable roof covers in Table 2B herein. |

4. LIMITATIONS OF USE:

- 4.1 This is a building code evaluation. NEMO CERT, LLC are not, in any way, the Designer of Record for any project on which this NER, or previous versions thereof, is/was used for permitting or design guidance. NERs are not to be construed as representing any attributes not specifically listed, nor are NERs to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.
- 4.2 This NER pertains to above-deck roof components. Roof decks and structural members shall be in accordance with the applicable Code requirements to the satisfaction of the Authority Having Jurisdiction.
- 4.3 **CertainTeed Roof Underlayments** may be used with any prepared roof cover where the product is specifically referenced within applicable approval documents. If not listed, a request may be made to the Authority Having Jurisdiction for approval based on this evaluation combined with supporting data for the prepared roof covering.
- 4.4 **Fire Classification:**
CertainTeed Roof Underlayments may be used in non-classified roof coverings or as a component of a classified roofing assembly when specifically recognized as such in a listing approved by the Authority Having Jurisdiction. Refer to UL File [TG DY.R10269](#) or [TG FU.R11656](#) for the applicant's baseline fire classification listings.



NEMO EVALUATIONS REPORT

Report No.: NER-CTR-002.R3
 Revision 3: 2025-12-16
 Page 9 of 19

CertainTeed, LLC
 FL11288-R26



4.5 Allowable Roof Covers:

Table 2 lists allowable roof cover types, subject to fire classification documentation set forth in [Section 4.4](#) herein (if applicable).

| TABLE 2A: ROOF COVER OPTIONS, IBC/IRC | | | | | |
|-----------------------------------------------|------------------------------|----------------|------------------|-----------------|------------------|
| UNDERLAYMENT | ROOF COVER | IBC SECTION(S) | | IRC SECTION(S) | |
| | | SECTION | USE | SECTION | USE |
| Metalayment or WinterGuard HT | Asphalt Shingles | 1507.2 | Yes ¹ | R905.2 | Yes ² |
| | Roof Tile | 1507.3 | No | R905.3 | No |
| | Metal Shingles or Panels | 1507.4, 1507.5 | Yes ¹ | R905.4, R905.10 | Yes ² |
| | Slate or Slate-Type Shingles | 1507.7 | Yes ¹ | R905.6 | Yes ² |
| | Wood Shingles or Shakes | 1507.8, 1507.9 | Yes ¹ | R905.7, R905.8 | Yes ² |
| | Photovoltaic Shingles | 1507.16 | Yes ¹ | R905.16 | Yes ² |
| Black Diamond Base Sheet or WinterGuard Sand | Asphalt Shingles | 1507.2, | Yes ¹ | R905.2 | Yes ² |
| | Roof Tile | 1507.3, | No | R905.3 | No |
| | Metal Shingles or Panels | 1507.4, 1507.5 | No | R905.4, R905.10 | No |
| | Slate or Slate-Type Shingles | 1507.7, | Yes ¹ | R905.6 | Yes ² |
| | Wood Shingles or Shakes | 1507.8, 1507.9 | Yes ¹ | R905.7, R905.8 | Yes ² |
| | Photovoltaic Shingles | 1507.16 | No | R905.16 | No |
| WinterGuard Granular or Flintlastic SA Cap FR | Asphalt Shingles | 1507.2 | Yes ¹ | R905.2 | Yes ² |
| | Roof Tile | 1507.3 | No | R905.3 | No |
| | Metal Shingles or Panels | 1507.4, 1507.5 | No | R905.4, R905.10 | No |
| | Slate or Slate-Type Shingles | 1507.7 | Yes ¹ | R905.6 | Yes ² |
| | Wood Shingles or Shakes | 1507.8, 1507.9 | No | R905.7, R905.8 | No |
| | Photovoltaic Shingles | 1507.16 | No | R905.16 | No |
| Flintlastic SA Cap | Asphalt Shingles | 1507.2 | Yes ¹ | R905.2 | Yes ² |
| | Roof Tile | 1507.3 | Yes ⁴ | R905.3 | Yes ⁴ |
| | Metal Shingles or Panels | 1507.4, 1507.5 | No | R905.4, R905.10 | No |
| | Slate or Slate-Type Shingles | 1507.7 | Yes ¹ | R905.6 | Yes ² |
| | Wood Shingles or Shakes | 1507.8, 1507.9 | No | R905.7, R905.8 | No |
| | Photovoltaic Shingles | 1507.16 | No | R905.16 | No |
| Flintlastic GMS or Flintlastic GTA | Asphalt Shingles | 1507.2 | No | R905.2 | No |
| | Roof Tile | 1507.3 | Yes ⁴ | R905.3 | Yes ⁴ |
| | Metal Shingles or Panels | 1507.4, 1507.5 | No | R905.4, R905.10 | No |
| | Slate or Slate-Type Shingles | 1507.7 | No | R905.6 | No |
| | Wood Shingles or Shakes | 1507.8, 1507.9 | No | R905.7, R905.8 | No |
| | Photovoltaic Shingles | 1507.16 | No | R905.16 | No |

¹ For the IBC, product is used as a min. 4-inch wide joint-strips per IBC 1507.1.1(1) or installed in full-coverage atop ASTM D226 felt or ASTM D4869 felt installed in accordance with IBC Tables 1507.1.1(2) and 1507.1.1(3).

² For the IRC, product is used in full-coverage in accordance with IRC R905.1.1(1), or as min. 4-inch wide joint-strips per IRC R905.1.1(2) or installed in full-coverage atop ASTM D226 felt or ASTM D4869 felt installed in accordance with IRC Tables R905.1.1(2) and R905.1.1(3).



NEMO EVALUATIONS REPORT

Report No.: NER-CTR-002.R3
 Revision 3: 2025-12-16
 Page 10 of 19

CertainTeed, LLC
 FL11288-R26



TABLE 2B: ROOF COVER OPTIONS, FBC

| UNDERLAYMENT | ROOF COVER | FBC AND FBC-R SECTION(S) | | FBC HVHZ SECTIONS | |
|-----------------------------------------------|------------------------------|---------------------------------|------------------|---------------------|------------------|
| | | SECTION | USE | SECTION | USE |
| Metalayment or WinterGuard HT | Asphalt Shingles | 1507.2, R905.2 | Yes | RAS 115, 1518.2.1 | Yes |
| | Roof Tile | 1507.3, R905.3 | No | RAS 118, 119 or 120 | No |
| | Metal Shingles or Panels | 1507.4, 1507.5, R905.4, R905.10 | Yes | RAS 133, 1518.2.1 | Yes |
| | Slate or Slate-Type Shingles | 1507.7, R905.6 | Yes | 1518.2.1 | Yes |
| | Wood Shingles or Shakes | 1507.8, 1507.9, R905.7, R905.8 | Yes ³ | RAS 130, 1518.10 | Yes ³ |
| | Photovoltaic Shingles | 1507.17, R905.16 | Yes ³ | 1518.2.1 | Yes ³ |
| Black Diamond Base Sheet or WinterGuard Sand | Asphalt Shingles | 1507.2, R905.2 | Yes | RAS 115, 1518.2.1 | Yes |
| | Roof Tile | 1507.3, R905.3 | No | RAS 118, 119 or 120 | No |
| | Metal Shingles or Panels | 1507.4, 1507.5, R905.4, R905.10 | No | RAS 133, 1518.2.1 | No |
| | Slate or Slate-Type Shingles | 1507.7, R905.6 | Yes | 1518.2.1 | Yes |
| | Wood Shingles or Shakes | 1507.8, 1507.9, R905.7, R905.8 | Yes ³ | RAS 130, 1518.10 | Yes ³ |
| | Photovoltaic Shingles | 1507.17, R905.16 | No | 1518.2.1 | No |
| WinterGuard Granular or Flintlastic SA Cap FR | Asphalt Shingles | 1507.2, R905.2 | Yes | RAS 115, 1518.2.1 | Yes |
| | Roof Tile | 1507.3, R905.3 | No | RAS 118, 119 or 120 | No |
| | Metal Shingles or Panels | 1507.4, 1507.5, R905.4, R905.10 | No | RAS 133, 1518.2.1 | No |
| | Slate or Slate-Type Shingles | 1507.7, R905.6 | Yes | 1518.2.1 | Yes |
| | Wood Shingles or Shakes | 1507.8, 1507.9, R905.7, R905.8 | No | RAS 130, 1518.10 | No |
| | Photovoltaic Shingles | 1507.17, R905.16 | No | 1518.2.1 | No |
| Flintlastic SA Cap | Asphalt Shingles | 1507.2, R905.2 | Yes | RAS 115, 1518.2.1 | Yes |
| | Roof Tile | 1507.3, R905.3 | Yes ⁴ | RAS 118, 119 or 120 | Yes ⁴ |
| | Metal Shingles or Panels | 1507.4, 1507.5, R905.4, R905.10 | No | RAS 133, 1518.2.1 | No |
| | Slate or Slate-Type Shingles | 1507.7, R905.6 | Yes | 1518.2.1 | Yes |
| | Wood Shingles or Shakes | 1507.8, 1507.9, R905.7, R905.8 | No | RAS 130, 1518.10 | No |
| | Photovoltaic Shingles | 1507.17, R905.16 | No | 1518.2.1 | No |
| Flintlastic GMS or Flintlastic GTA | Asphalt Shingles | 1507.2, R905.2 | No | RAS 115, 1518.2.1 | No |
| | Roof Tile | 1507.3, R905.3 | Yes ⁴ | RAS 118, 119 or 120 | Yes ⁴ |
| | Metal Shingles or Panels | 1507.4, 1507.5, R905.4, R905.10 | No | RAS 133, 1518.2.1 | No |
| | Slate or Slate-Type Shingles | 1507.7, R905.6 | No | 1518.2.1 | No |
| | Wood Shingles or Shakes | 1507.8, 1507.9, R905.7, R905.8 | No | RAS 130, 1518.10 | No |
| | Photovoltaic Shingles | 1507.17, R905.16 | No | 1518.2.1 | No |

4.5.1 Adhesive-set tile is limited to use of the following Approved underlayment / tile-adhesive combinations.

TABLE 2C: ALLOWABLE UNDERLAYMENT / TILE-ADHESIVE COMBINATIONS⁵

| UNDERLAYMENT | ADHESIVE | CODE COMPLIANCE REPORT | | |
|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------|------------|
| | | IBC/IRC | FBC FPA | FBC HVHZ |
| Flintlastic SA Cap or Flintlastic GMS | Dupont "TILE BOND Roof Tile Adhesive" | ER18231-01 | FL22525 | 22-0614.05 |
| Flintlastic SA Cap, Flintlastic GMS or Flintlastic GTA | ICP "APOC POLYSET AH-160" | ESR-1709 | FL6332 | 22-0614.10 |
| Flintlastic SA Cap | ICP "APOC® Polyset® RTA-1" | ER-629 | FL6276 | 22-0614.08 |
| Flintlastic SA Cap, Flintlastic GMS or Flintlastic GTA | Mortar meeting FRSA/TRI Florida High Wind Concrete and Clay Roof Tile Installation Manual , Seventh Edition requirements and holding current Florida Local or Statewide Product Approval. | | | |

³ For wood shakes, wood shingles and photovoltaic shingles, limited to use as joint-strips per FBC 1507.1.1.1(2), 1518.2.1(2) or R905.1.1.1(2) or as cap sheet atop mechanically attached, FBC Approved ASTM D226 Type II or ASTM D4869 Type III or IV base sheet.

⁴ For roof tile, used with mechanically fastened tile or adhesive-set tile using adhesive options set forth in [Table 2c](#).

⁵ Refer to Tile Manufacturer's or Adhesive Manufacturer's compliance documentation for Overturning Moment Resistance Performance.



NEMO EVALUATIONS REPORT

Report No.: NER-CTR-002.R3
 Revision 3: 2025-12-16
 Page 11 of 19

CertainTeed, LLC
 FL11288-R26



4.6 Allowable Substrates:

| TABLE 3: SUBSTRATE OPTIONS FOR ADHERED UNDERLAYMENTS | | | | |
|-----------------------------------------------------------------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| UNDERLAYMENT | APPLICATION | SUBSTRATES (DESIGNED TO MEET WIND LOADS FOR PROJECT) | | |
| | | TYPE | PRIMER | MATERIAL(S) |
| MetaLayment, WinterGuard Granular, WinterGuard HT or WinterGuard Sand | Self-adhering | Deck / sheathing | (Optional) ASTM D41 or FlintPrime QD | plywood |
| | | Base Sheet | None | All Weather/Empire Base Sheet, Glasbase Base Sheet or Approved, ASTM D226 Type II or ASTM D4869 Type III or IV |
| Black Diamond Base Sheet | Self-adhering | Deck / sheathing | (Optional) ASTM D41 or FlintPrime QD | plywood |
| | | | ASTM D41 or FlintPrime QD | structural concrete |
| | | Base Sheet | None | All Weather/Empire Base Sheet, Glasbase Base Sheet or Approved, ASTM D226 Type II or ASTM D4869 Type III or IV |
| | | Flintlastic SA MidPly, Flintlastic SA PlyBase, Flintlastic Ultra Glass SA, Flintlastic SA Cap or Flintlastic SA Cap FR | Deck / sheathing | (Optional) ASTM D41 or FlintPrime QD |
| ASTM D41 or FlintPrime QD | structural concrete | | | |
| Base Sheet | None | | All Weather/Empire Base Sheet, Glasbase Base Sheet, Flintlastic SA NailBase or Approved, ASTM D226 Type II or ASTM D4869 Type III or IV | |
| | | Base Ply | None | Flintlastic SA MidPly, Flintlastic SA PlyBase |
| Flintlastic GMS | Hot asphalt | Deck | ASTM D41 or FlintPrime QD | structural concrete |
| | | Base Sheet | None | All Weather/Empire Base Sheet, Glasbase Base Sheet or Approved, ASTM D226 Type II |
| | | Base Ply | None | Black Diamond Base Sheet or Flintlastic Ultra Glass SA |
| Flintlastic GTA | Torch-applied | Deck | ASTM D41 or FlintPrime QD | structural concrete |
| | | Base Ply | None | Black Diamond Base Sheet or Flintlastic Ultra Glass SA |



NEMO EVALUATIONS REPORT

Report No.: NER-CTR-002.R3
 Revision 3: 2025-12-16
 Page 12 of 19

CertainTeed, LLC
 FL11288-R26



4.7 Attachment Limitations:

4.7.1 For use under the IBC and IRC and for use in NON-TILE applications under the FBC and FBC Residential, refer to [Section 3](#) herein and the applicable Code requirements.

4.7.2 Wind Resistance for Underlayment Systems in Tile Roof Applications under the FBC and FBC Residential:

The following wind uplift limitations apply to tile underlayment systems per FBC 1504.2.1.4 and Section 7 of TAS 103. The Maximum Design Pressure ('MDP') 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 has already been applied).

| TABLE 4A: ALLOWABLE DESIGN PRESSURES, ADHERED, DIRECT-TO-DECK UNDERLAYMENT SYSTEMS IN TILE ROOF APPLICATIONS | | | | | | |
|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|--------------------------------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| SYSTEM No. | DECK | PRIMER | JOINT TREATMENT | UNDERLAYMENT | | MDP (PSF) |
| | | | | BASE PLY | CAP PLY | |
| UDL-1. | OSB, APA rated sheathing, 24/16, Exposure 1, PS2, 7/16 category | ASTM D41 or FlintPrime QD | None | Flintlastic SA MidPly, self-adhered and back-nailed max. 12-inch o.c. | Flintlastic SA Cap, self-adhered and back-nailed max. 12-inch o.c. | -90.0 (NO HVHZ) |
| UDL-2. | Plywood, APA rated sheathing, 32/16, Exposure 1, PS1, 15/32 category | (Optional) ASTM D41 or FlintPrime QD | None | Flintlastic SA MidPly or Flintlastic SA PlyBase, self-adhered and back-nailed max. 12-inch o.c. | Flintlastic SA Cap, self-adhered and back-nailed max. 12-inch o.c. | -105.0 |
| UDL-3. | Plywood, APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category | ASTM D41 or FlintPrime QD | Flintlastic SA PlyBase | (Optional) Flintlastic SA MidPly or Flintlastic SA PlyBase, self-adhered and back-nailed max. 12-inch o.c. | Flintlastic SA Cap, self-adhered and back-nailed max. 12-inch o.c. | -127.5 |
| UDL-4. | Plywood, APA rated sheathing, 32/16, Exposure 1, PS1, 15/32 category | (Optional) FlintPrime QD | None | Flintlastic SA MidPly or Flintlastic SA PlyBase, self-adhered and back-nailed max. 12-inch o.c. | Flintlastic SA Cap, self-adhered and back-nailed max. 12-inch o.c. | -127.5 |
| UDL-5. | Plywood, APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category | None | None | None | Flintlastic SA Cap, self-adhered and back-nailed using 12 ga. annular ring shank nails through 32 ga., 1-5/8-inch diameter tin caps, max 12-inch o.c. | -217.5 |
| UDL-6. | Plywood, APA rated sheathing, 32/16, Exposure 1, PS1, 15/32 category | None | None | (Optional) Flintlastic Ultra Glass SA, Flintlastic SA MidPly or Flintlastic SA PlyBase, self-adhering and back-nailed using 12 ga. annular ring shank nails through 32 ga., 1-5/8-inch diameter tin caps, max 12-inch o.c. | Flintlastic SA Cap, self-adhered and back-nailed using 12 ga. annular ring shank nails through 32 ga., 1-5/8-inch diameter tin caps, max 12-inch o.c. | -217.5 |
| UDL-7. | Structural concrete | ASTM D41 or FlintPrime QD | N/A | Black Diamond Base Sheet or Flintlastic Ultra Glass SA, self-adhered and back-nailed using Approved fasteners and plates, max. 12-inch o.c. | Flintlastic GMS, applied in hot asphalt and back-nailed using Approved fasteners and plates, max. 12-inch o.c. | -240.0 |
| UDL-8. | Structural concrete | ASTM D41 or FlintPrime QD | N/A | Black Diamond Base Sheet, Flintlastic SA PlyBase or Flintlastic Ultra Glass SA, self-adhered and back-nailed using Approved fasteners and plates, max. 12-inch o.c. | Flintlastic GTA, torch-applied and back-nailed using Approved fasteners and plates, max. 12-inch o.c. | -240.0 |
| UDL-9. | Structural concrete | ASTM D41 or FlintPrime QD | N/A | (Optional) Flintlastic SA MidPly or Flintlastic SA PlyBase, self-adhered and back-nailed using Approved fasteners and plates, max. 12-inch o.c. | Flintlastic SA Cap, self-adhered and back-nailed using Approved fasteners and plates, max. 12-inch o.c. | -240.0 |



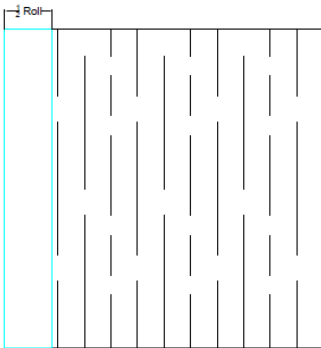
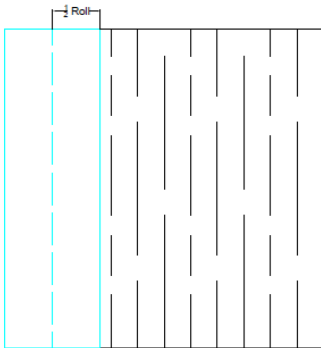
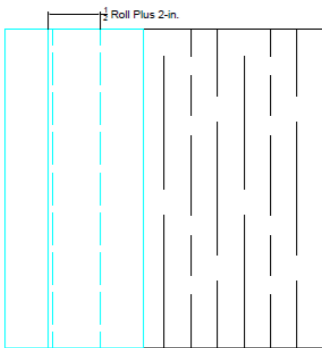
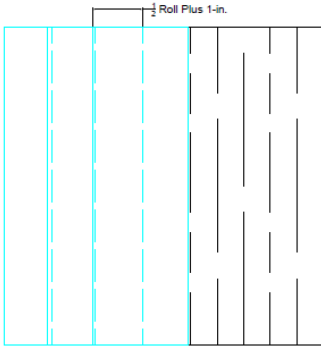
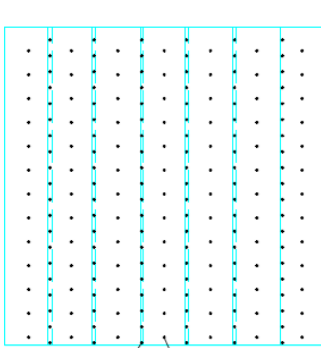
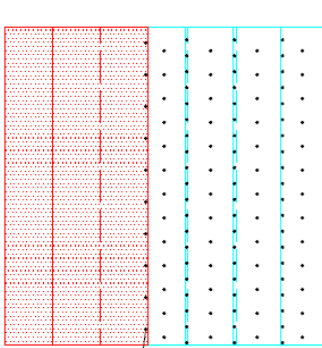
NEMO EVALUATIONS REPORT

Report No.: NER-CTR-002.R3
 Revision 3: 2025-12-16
 Page 13 of 19

CertainTeed, LLC
 FL11288-R26



| TABLE 4B: ALLOWABLE DESIGN PRESSURES, MECHANICALLY ATTACHED, MULTI-PLY UNDERLAYMENT SYSTEMS IN TILE ROOF APPLICATIONS | | | | | | | |
|--------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| *Nails shall be corrosion resistance and be of sufficient length to penetrate through the sheathing by min. 3/16-inch | | | | | | | |
| SYSTEM NO. | DECK | BASE SHEET | | | UNDERLAYMENT | | MDP (PSF) |
| | | TYPE | FASTEN | ATTACH | BASE PLY | TOP PLY | |
| UDL-10. | Plywood , APA rated sheathing, 32/16, Exposure 1, PS1, 15/32 category | Flintlastic SA NailBase | 12 ga. annular ring shank nails* through 32 ga., 1 5/8-inch diameter tin caps | 6-inch o.c. at the 4-inch laps and 12-inch o.c. at two (2) equally spaced, staggered center rows | (Optional) Flintlastic SA MidPly or Flintlastic SA PlyBase, self-adhered and back-nailed* max. 12-inch o.c. | Flintlastic SA Cap, self-adhered and back-nailed* max. 12-inch o.c. | -37.5 (NO HVHZ) |
| UDL-11. | Plywood , APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category | All Weather/ Empire Base Sheet or Glasbase Base Sheet | 12 ga. annular ring shank nails* through 32 ga., 1 5/8-inch diameter tin caps | 6-inch o.c. at the min. 4-inch laps and 9-inch o.c. at three (3) equally spaced center rows | None | Flintlastic GMS, applied in hot asphalt and back-nailed using 12 ga. annular ring shank nails* through 32 ga., 1-5/8-inch diameter tin caps, max. 12-inch o.c. | -45.0 |
| UDL-12. | Plywood , APA rated sheathing, 32/16, Exposure 1, PS1, 15/32 category | Flintlastic SA NailBase | 12 ga. Simplex Metal Cap Nails* | 6-inch o.c. at the min. 2-inch laps and 6-inch o.c. at four (4) equally spaced, staggered center rows | (Optional) Flintlastic SA MidPly or Flintlastic SA PlyBase, self-adhered and back-nailed* max. 12-inch o.c. | Flintlastic SA Cap, self-adhered and back-nailed* max. 12-inch o.c. | -52.5 (NO HVHZ) |
| UDL-13. | Plywood , APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category | One (1) layer, FBC Approved ASTM D226 Type II | 12 ga. annular ring shank nails* through 32 ga., 1 5/8-inch diameter tin caps | 6-inch o.c. at the min. 4-inch laps and 9-inch o.c. at three (3) equally spaced, staggered center rows | None | Flintlastic GMS, applied in hot asphalt and back-nailed using 12 ga. annular ring shank nails* through 32 ga., 1-5/8-inch diameter tin caps, max. 12-inch o.c. | -52.5 |
| UDL-14. | OSB , APA rated sheathing, 24/16, Exposure 1, PS2, 7/16 category | Flintlastic SA NailBase | TRUFast Versa-Fast Fasteners & Plates; min. two (2) screws per plate at 180° from each other; FlintPrime QD at stress plates | 9-inch o.c. at the 3-inch wide side laps and 12-inch o.c. at two (2) equally spaced, staggered center rows | (Optional) Flintlastic SA MidPly, self-adhered and back-nailed* max. 12-inch o.c. | Flintlastic SA Cap, self-adhered and back-nailed* max. 12-inch o.c. | -60.0 (NO HVHZ) |
| UDL-15. | Plywood , APA rated sheathing, 32/16, Exposure 1, PS1, 15/32 category | Flintlastic SA NailBase | TRUFast Versa-Fast Fasteners & Plates; min. two (2) screws per plate at 180° from each other; FlintPrime QD at stress plates | 9-inch o.c. at the 3-inch wide side laps and 12-inch o.c. at two (2) equally spaced, staggered center rows | (Optional) Flintlastic SA MidPly, self-adhered and back-nailed* max. 12-inch o.c. | Flintlastic SA Cap, self-adhered and back-nailed* max. 12-inch o.c. | -60.0 |
| UDL-16. | Plywood , APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category | Flintlastic SA NailBase | 12 ga. annular ring shank nails* through 32 ga., 1 5/8-inch diameter tin caps | 8-inch o.c. at the min. 2-inch laps and 8-inch o.c. at three (3) equally spaced, staggered center rows | (Optional) Flintlastic SA MidPly or Flintlastic SA PlyBase, self-adhered and back-nailed* max. 12-inch o.c. | Flintlastic SA Cap, self-adhered and back-nailed* max. 12-inch o.c. | -60.0 |

| TABLE 4B: ALLOWABLE DESIGN PRESSURES, MECHANICALLY ATTACHED, MULTI-PLY UNDERLAYMENT SYSTEMS IN TILE ROOF APPLICATIONS | | | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------------------------------------------------------------------------------------------|-----------------|
| *Nails shall be corrosion resistance and be of sufficient length to penetrate through the sheathing by min. 3/16-inch | | | | | | | |
| SYSTEM NO. | DECK | BASE SHEET | | | UNDERLAYMENT | | MDP (PSF) |
| | | TYPE | FASTEN | ATTACH | BASE PLY | TOP PLY | |
| UDL-17. | Plywood, APA rated sheathing, 32/16, Exposure 1, PS1, 15/32 category | All Weather/ Empire Base Sheet or Glasbase Base Sheet | Cap nails: 1-inch diameter, 0.032-inch thick metal cap with 0.120-inch shank diameter, annular ring shank nails* | 6-inch o.c. at 4-inch lap and 6-inch o.c. at five (5) equally spaced, staggered center rows in the field of the sheet | None | Flintlastic GMS, applied in hot asphalt and back-nailed* max. 12-inch o.c. | -67.5 (NO HVHZ) |
| UDL-18. | Plywood, APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category | APOC 26 #30 Tuff-Felt** | 12 ga. annular ring shank nails* through 32 ga., 1 5/8-inch diameter tin caps | Start 6-inch o.c. with centerline 1-inch from the start-edge, followed by one (1) row in the centerline of the half-width, 8-inch o.c. Repeat this pattern of 6, 8, at the lap-edge and center-row, respectively. | None | Flintlastic SA Cap, self-adhered and back-nailed using nails and tin-caps* max. 12-inch o.c. | -67.5 |
| | | | | | | | |
| <p>Apply a strip of base sheet for the first course that is half the width of a full sheet, fastened sufficiently to hold it in place.</p>  <p>Apply a full sheet of base sheet for the second course, fully overlapping the first half-width course.</p>  <p>Apply the third course of base sheet overlapping the second course half the width of a full sheet plus 2 inches.</p>  <p>Overlap all successive courses half the width of a full sheet plus 1 inch.</p>  <p>Fastening: 12 ga. x 1.5-inch annular ring shank nails with 32 ga., 1-5/8-inch diameter tin caps, Start 6-inch o.c., with the centerline 1-inch from the start edge, followed by one (1) row in the centerline of the half-width, 8-inch o.c. Repeat this pattern of 6, 8 at the lap-edge and center row, respectively.</p>  <p>Flintlastic SA Cap applied in ASTM D312, Type IV hot asphalt and back-nailed using 12 ga. x 1.5-inch annular ring shank nails with 32 ga., 1-5/8-inch diameter tin caps, 12-inch o.c.</p>  <p>1 Row @ 6-in. o.c. for Lap-Edges</p> <p>1 Row @ 8-in. o.c. for Center-Rows</p> <p>Back-Nailed @ 12-in. o.c.</p> | | | | | | | |



NEMO EVALUATIONS REPORT

Report No.: NER-CTR-002.R3
 Revision 3: 2025-12-16
 Page 15 of 19

CertainTeed, LLC
 FL11288-R26



| TABLE 4B: ALLOWABLE DESIGN PRESSURES, MECHANICALLY ATTACHED, MULTI-PLY UNDERLAYMENT SYSTEMS IN TILE ROOF APPLICATIONS | | | | | | | |
|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|-----------|
| *Nails shall be corrosion resistance and be of sufficient length to penetrate through the sheathing by min. 3/16-inch | | | | | | | |
| SYSTEM NO. | DECK | BASE SHEET | | | UNDERLAYMENT | | MDP (PSF) |
| | | TYPE | FASTEN | ATTACH | BASE PLY | TOP PLY | |
| UDL-19. | Plywood, APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category | Flintlastic SA NailBase | 12 ga. annular ring shank nails* through 32 ga., 1 5/8-inch diameter tin caps | 6-inch o.c. at the min. 2-inch laps and 6-inch o.c. at four (4) equally spaced, staggered center rows | (Optional) Flintlastic SA MidPly or Flintlastic SA PlyBase, self-adhered and back-nailed* max. 12-inch o.c. | Flintlastic SA Cap, self-adhered and back-nailed* max. 12-inch o.c. | -75.0 |

| TABLE 4B: ALLOWABLE DESIGN PRESSURES, MECHANICALLY ATTACHED, MULTI-PLY UNDERLAYMENT SYSTEMS IN TILE ROOF APPLICATIONS | | | | | | | |
|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|--------------------------------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| *Nails shall be corrosion resistance and be of sufficient length to penetrate through the sheathing by min. 3/16-inch | | | | | | | |
| SYSTEM NO. | DECK | BASE SHEET | | | UNDERLAYMENT | | MDP (PSF) |
| | | TYPE | FASTEN | ATTACH | BASE PLY | TOP PLY | |
| UDL-20. | Plywood, APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category | Double-layer application, Approved ASTM D226 Type II** | 12 ga. annular ring shank nails* through 32 ga., 1 5/8-inch diameter tin caps | Start 6-inch o.c. with centerline 1-inch from the start-edge, followed by one (1) row in the centerline of the half-width, 9-inch o.c. Repeat this pattern of 6, 9, at the lap-edge and center-row, respectively. | None | Flintlastic GMS, applied in hot asphalt and back-nailed using 12 ga. annular ring shank nails* through 32 ga., 1-5/8-inch diameter tin caps, max. 12-inch o.c. | -82.5 |
| | | | | | | | |
| UDL-21. | Plywood, APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category | TAMKO No. 30 UL | 12 ga. annular ring shank nails* through 32 ga., 1 5/8-inch diameter tin caps | 6-inch o.c. at 4-inch lap and 6-inch o.c. at four (4) equally spaced, staggered center rows in the field of the sheet | None | Flintlastic SA Cap, self-adhered and back-nailed using nails and tin-caps* max. 12-inch o.c. | -82.5 |



NEMO EVALUATIONS REPORT

Report No.: NER-CTR-002.R3
 Revision 3: 2025-12-16
 Page 17 of 19

CertainTeed, LLC
 FL11288-R26



| TABLE 4B: ALLOWABLE DESIGN PRESSURES, MECHANICALLY ATTACHED, MULTI-PLY UNDERLAYMENT SYSTEMS IN TILE ROOF APPLICATIONS | | | | | | | |
|--------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-------------------------|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-----------|
| *Nails shall be corrosion resistance and be of sufficient length to penetrate through the sheathing by min. 3/16-inch | | | | | | | |
| SYSTEM NO. | DECK | BASE SHEET | | | UNDERLAYMENT | | MDP (PSF) |
| | | TYPE | FASTEN | ATTACH | BASE PLY | TOP PLY | |
| UDL-22. | Plywood , APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category | APOC 26 #30 Tuff-Felt | 12 ga. annular ring shank nails* through 32 ga., 1 5/8-inch diameter tin caps | 6-inch o.c. at 4-inch lap and 6-inch o.c. at four (4) equally spaced, staggered center rows in the field of the sheet | None | Flintlastic SA Cap, self-adhered and back-nailed using nails and tin-caps* max. 12-inch o.c. | -97.5 |
| UDL-23. | Plywood , APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category | Flintlastic SA NailBase | 12 ga. annular ring shank nails* through 32 ga., 1 5/8-inch diameter tin caps | 4-inch o.c. at the min. 2-inch laps and 4-inch o.c. at four (4) equally spaced, staggered center rows | (Optional) Flintlastic SA MidPly or Flintlastic SA PlyBase, self-adhered and back-nailed* max. 12-inch o.c. | Flintlastic SA Cap, self-adhered and back-nailed* max. 12-inch o.c. | -105.0 |

| TABLE 4B: ALLOWABLE DESIGN PRESSURES, MECHANICALLY ATTACHED, MULTI-PLY UNDERLAYMENT SYSTEMS IN TILE ROOF APPLICATIONS | | | | | | | |
|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|--------------------------------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| *Nails shall be corrosion resistance and be of sufficient length to penetrate through the sheathing by min. 3/16-inch | | | | | | | |
| SYSTEM NO. | DECK | BASE SHEET | | | UNDERLAYMENT | | MDP (PSF) |
| | | TYPE | FASTEN | ATTACH | BASE PLY | TOP PLY | |
| UDL-24. | Plywood, APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category | Double-layer application, Approved ASTM D226 Type II** | 12 ga. annular ring shank nails* through 32 ga., 1 5/8-inch diameter tin caps | Start 4-inch o.c. with centerline 1-inch from the start-edge, followed by rows spaced 8-inch o.c. with fasteners spaced 4-inch o.c. | None | Flintlastic GMS, applied in hot asphalt and back-nailed using 12 ga. annular ring shank nails* through 32 ga., 1-5/8-inch diameter tin caps, max. 12-inch o.c. | -195.0 |
| | | | | | | | |
| UDL-25. | Plywood, APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category | One (1) layer, FBC Approved ASTM D226 Type II | 12 ga. annular ring shank nails* through 32 ga., 1 5/8-inch diameter tin caps | 4-inch o.c. at the min. 4-inch laps and 4-inch o.c. at four (4) equally spaced, staggered center rows | None | Flintlastic GMS, applied in hot asphalt and back-nailed using 12 ga. annular ring shank nails* through 32 ga., 1-5/8-inch diameter tin caps, max. 12-inch o.c. | -157.5 |



NEMO EVALUATIONS REPORT

Report No.: NER-CTR-002.R3
Revision 3: 2025-12-16
Page 19 of 19

CertainTeed, LLC
FL11288-R26



4.8 Exposure Limitations:

| TABLE 5: EXPOSURE LIMITATIONS | | |
|-------------------------------------------------------------------------------|----------------------------------------------------|-------------------------|
| UNDERLAYMENT | PREPARED ROOF COVER TYPE (OVERTOP OF UNDERLAYMENT) | MAXIMUM EXPOSURE (DAYS) |
| Black Diamond Base Sheet | Mechanically attached | 30 |
| WinterGuard Granular or WinterGuard Sand | Mechanically attached | 60 |
| MetaLayment or WinterGuard HT | Mechanically attached | 180 |
| Flintlastic SA Cap, Flintlastic GTA or Flintlastic GMS | Adhesive- or mortar-set tile | 180 |
| Flintlastic SA Cap, Flintlastic SA Cap FR, Flintlastic GTA or Flintlastic GMS | Mechanically attached | UNLIMITED |

4.9 Tile Slippage Limitations:

When loading roof tiles on the underlayment, the maximum roof slope shall be as follows. Slopes in excess of these limitations require the use of battens or loading boards during loading of the roof tiles, in which case the maximum staging method is a 10-tile stack.

| TABLE 6: TILE SLIPPAGE LIMITATIONS | | | |
|---------------------------------------|--------------|----------------------------------------------|---------------|
| UNDERLAYMENT | TILE PROFILE | STAGING METHOD | MAXIMUM SLOPE |
| Flintlastic GMS or Flintlastic SA Cap | All | Max. 6-tile stack (4 over 2) | 4:12 |
| | Flat | Max. 10-tile stack | 4:12 |
| Flintlastic GTA | Lugged | Prohibited without battens or loading boards | N/A |

4.10 All components in the roof assembly shall have quality assurance surveillance. For Florida Product Approval, this shall be in accordance with **F.A.C. Rule 61G20-3**. For components listed herein that are produced by a manufacturer other than the report holder on [Page 1](#) of this NER, refer to the supporting evidence held by the component manufacturer.

- END OF NER -