Code Compliance Research Report
CCRR-0340

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DIVISION: 07 00 00 – THERMAL AND MOISTURE PROTECTION
Section: 07 30 05 – Roofing Felt and Underlayment

REPORT HOLDER:
Max Roofing Products, LLC
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https://maxfelt.com

REPORT SUBJECT:
MaxFelt NC, MaxFelt TS, MaxFelt 120, and MaxFelt 160 Synthetic Roofing Underlayments

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2021, 2018, and 2015 *International Building Code®* (IBC)
- 2021, 2018, and 2015 *International Residential Code®* (IRC)
- 2020 *Florida Building Code* (FBC)

1.2 MaxFelt NC, MaxFelt TS, MaxFelt 120, and MaxFelt 160 underlayments have been evaluated for the following properties (see Table 1):

- Physical Properties
- Ice Barrier
- Fire Classification

1.3 MaxFelt NC, MaxFelt TS, MaxFelt 120, and MaxFelt 160 underlayments have been evaluated for the following uses (see Table 1):

- Use in the field of the roof as an alternative to the ASTM D226, Type I and Type II, roof underlayments specified in Chapter 15 of the IBC and Chapter 9 of the IRC
- Use in areas of the roof required by IBC Section 1507 or IRC Section R905 to have an ice barrier roof underlayment, when installed as noted in Section 5.2
- Use as a component of classified roof assemblies when installed as noted in Section 4.1

2.0 STATEMENT OF COMPLIANCE

MaxFelt NC, MaxFelt TS, MaxFelt 120, and MaxFelt 160 underlayments comply with the Codes listed in Section 1.1, for the properties stated in Section 1.2, and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 6.0.

3.0 DESCRIPTION

3.1 MaxFelt NC is a mechanically attached synthetic underlayment comprised of a cross-woven polypropylene base scrim laminated onto a non-woven scrim. The exposed and sheathing sides of the underlayment are coated. The underlayment has an overall weight of 1.76 pounds per 100 square feet and is available in rolls 48 inches wide by 250 feet long.

3.2 MaxFelt TS is a mechanically attached synthetic underlayment comprised of a cross-woven polypropylene base scrim laminated onto a non-woven scrim. The exposed and sheathing sides of the underlayment are coated. The underlayment has an overall weight of 2.1 pounds per 100 square feet and is available in rolls 48 inches wide by 250 feet long.

3.3 MaxFelt 120 is a mechanically attached synthetic underlayment comprised of a cross-woven polypropylene base scrim laminated onto a non-woven scrim. The exposed and sheathing sides of the underlayment are coated. The underlayment has an overall weight of 2.7 pounds per 100 square feet and is available in rolls 48 inches wide by 250 feet long.

3.4 MaxFelt 160 is a mechanically attached synthetic underlayment comprised of a cross-woven polypropylene base scrim laminated onto a non-woven scrim. The exposed and sheathing sides of the underlayment are coated. The underlayment has an overall weight of 3.5 pounds per 100 square feet and is available in rolls 48 inches wide by 250 feet long.

4.0 PERFORMANCE CHARACTERISTICS

4.1 Fire Classification: The roof underlayments may be used as a component of a classified roof assembly when specifically recognized as such in a listing approved by the Code official. The underlayments may also be used as an alternative to the underlayments specified in the Code for roof coverings permitted under the Exceptions to IBC Section 1505.2 and IRC Section R902.1 and may be used where non-classified roofing is permitted in IBC Section 1505.5.

5.0 INSTALLATION

5.1 General: MaxFelt NC, MaxFelt TS, MaxFelt 120, and MaxFelt 160 underlayments must be installed in accordance with the manufacturer's published installation instructions, the applicable Code, and this Research Report. A copy of the manufacturer's instructions must be available on the jobsite during installation.

The underlayments must be installed in accordance with the subsections of IBC Section 1507 and IRC Section R905 applicable to the roof covering being installed. The underlayment must be laid with the print side up, with laps as required by the applicable Code, evaluation report, or manufacturer's instructions, whichever is more restrictive.

The roof covering may be installed immediately following the underlayment application and the underlayment must be covered within the time designated in the report holder's published installation instructions.

5.2 Ice Barrier: In areas of the roof required by IBC Section 1507 or IRC Section R905 to have an ice barrier, two layers of the underlayment, solidly cemented together with a low solvent-based roofing cement complying with ASTM D4586 Type 1 (asbestos free), may be used provided the ice barrier extends up the roof a minimum distance of 24 inches inside the interior wall line of the building. The underlayment installed in the field of the roof must overlap the ice barrier.

6.0 CONDITIONS OF USE

6.1 Installation must comply with this Research Report, the manufacturer's published installation instructions, and the applicable Code. In the event of a conflict, this report governs.

6.2 Installation is limited to use with approved mechanically attached roof covering systems.

6.3 Installation is limited to roof systems that do not involve hot asphalt or coal-tar pitch.

6.4 Installation is limited to roofs with a slope of 2:12 (17%) or greater.

6.5 Attic ventilation must be provided in accordance with the applicable Code since there are no requirements to evaluate vapor permeability of the underlayment.

6.6 The MaxFelt NC, MaxFelt TS, MaxFelt 120, and MaxFelt 160 underlayments are manufactured under a quality control program with inspections by Intertek Testing Services NA, Inc.

7.0 SUPPORTING EVIDENCE

7.1 Reports of tests in accordance with ASTM D8257 and ASTM E108.

7.2 Data in accordance with the ICC-ES Acceptance Criteria for Roof Underlayments (AC188), dated February 2012 (editorially revised December 2015).

7.3 Intertek Listing Report "MaxFelt NC, MaxFelt TS, MaxFelt 120, and MaxFelt 160 Synthetic Roofing Underlayments", on the Intertek Directory of Building Products.

8.0 IDENTIFICATION

The MaxFelt NC, MaxFelt TS, MaxFelt 120, and MaxFelt 160 underlayments are identified with the manufacturer's name, address and telephone number, the product names, the Intertek Mark as shown below, and the Code Compliance Research Report number (CCRR-0340).

9.0 OTHER CODES

9.1 Florida Building Code:

9.1.1 Scope of the Evaluation: MaxFelt NC, MaxFelt TS, MaxFelt 120, and MaxFelt 160 underlayments were evaluated for compliance with the 2020 *Florida Building Code – Building* and the 2020 *Florida Building Code – Residential*.

9.1.2 Conclusion: MaxFelt NC, MaxFelt TS, MaxFelt 120, and MaxFelt 160 underlayments described in Section 2.0 to 8.0 of this report comply with the 2020 *Florida Building Code – Building* and the 2020 *Florida Building Code – Residential*, including High-velocity Hurricane Zones (HVHZ), subject to the following conditions:

- The underlayments must be installed in accordance with the provisions noted in Section 2.0 through 8.0 of this report, and Sections 1507 and 1518 of the *Florida Building Code – Building*, and Section R905 of the *Florida Building Code – Residential*
- Evaluation for use with discontinuous roof tile systems is outside the scope of this report
- Intertek is an approved evaluation entity and quality assurance entity pursuant to Florida Statue 553.842 – *Product Evaluation and Approval*

10.0 CODE COMPLIANCE RESEARCH REPORT USE

10.1 Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.

10.2 Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Intertek.

10.3 Reference to the https://bpdirectory.intertek.com is recommended to ascertain the current version and status of this report.

TABLE 1 – PROPERTIES EVALUATED

PROPERTY	2021 IBC SECTION[1]	2021 IRC SECTION[1]	FBC (BUILDING)	FBC (RESIDENTIAL)
Physical Properties	104.11, 1506, and 1507	R104.11, R904, and R905	104.11, 1507, and 1518.4	R904 and R905
Ice Barrier	1507	R905	N/A	N/A
Fire Classification	1505	R902.1	1505	R902

[1] Section numbers may be different for earlier versions of the International Codes