

UL Evaluation Report

UL ER10827-01

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UL Category Code: ULEZ

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DIVISION: 07 00 00 THERMAL AND MOISTURE PROTECTION
Sub-level 2: 07 30 00 – Steep Slope Roofing

COMPANY:

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1. SUBJECT: TAM-FELT

2. SCOPE OF EVALUATION

- 2015, 2012, and 2009 *International Building Code®* (IBC)
- 2015, 2012, and 2009 *International Residential Code®* (IRC)
- ICC ES Acceptance Criteria for Roof Underlayments (AC188) Dated February 2012 (Editorially revised December 2015)
- ICC ES Acceptance Criteria for Quality Documentation (AC10) Dated June 2014

The products were evaluated for the following properties:

- Roofing Systems for Exterior Fire Exposure (ANSI/UL 790)
- Physical Properties



3. REFERENCED DOCUMENTS

- **ANSI/UL:**
 - ANSI/UL 790 Eighth Edition, Standard Test Methods for Fire Tests of Roof Coverings, Eighth Edition including revisions through July 29, 2014
- **ICC-ES:**
 - ICC ES Acceptance Criteria for Roof Underlayments (AC188) Dated February 2012 (Editorially revised December 2015)
 - ICC ES Acceptance Criteria for Quality Documentation (AC10), Dated June 2014
- **ASTM:**
 - ASTM D146/146M-04, *Standard Test Methods for Sampling and Testing Bitumen-Saturated Felts and Woven Fabrics for Roofing and Waterproofing*
 - ASTM D226/226M-09, *Standard Specification for Asphalt Saturated Organic Felt Used in Roofing and Waterproofing*
 - ASTM D1970/1970M-15a, *Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Damming*
 - ASTM D4869-15, *Standard Specification for Asphalt-Saturated Organic Felt Underlayment used in Steep Slope Roofing*

4. USES

The publication of this Evaluation Report is intended for the consideration by code officials under Section [104.11](#) of the 2015, 2012 and 2009 IBC and Section [R104.11](#) of the 2015, 2012 and 2009 IRC, “Alternate materials, design and methods of construction and equipment,” for steep slope roofing underlayments described in Section [1507](#) of the IBC and Section [R905](#) of the IRC.

This Evaluation Report is based on the mechanically attached underlayment’s compliance with ICC-ES Acceptance Criteria AC188 Acceptance Criteria for Roof Underlayments, and the physical property requirements of ASTM D226. TAM-FELT may also be used as a component of classified roofing assemblies when installed as described in this report.

The underlayment described in this Evaluation Report has been found to comply with the physical property specifications described in Table 1.

Table 1

Parameter	Material Specification	Test Method	Requirement
Average Breaking Strength			
With Fiber Grain	ASTM D226	ASTM D146	40 min. lbf/in of width
Across Fiber Grain	ASTM D226	ASTM D146	20 min. lbf/in of width
With and Across Fiber Grain	ICC-ES AC48 and AC188	ASTM D1970	25 min. lbf/in of width before and after accelerated aging and UV exposure
Pliability @ 25°C	ASTM D226 and ICC-ES AC188	ASTM D146	No cracking when bent 90° at a uniform speed over rounded corner of ¾ in. radius
Loss on Heating @ 105°C for 5 h	ASTM D226	ASTM D146	4% max.
Percent Ash	ASTM D226	ASTM D146	Max. 10%
Accelerated Aging	ICC-ES AC188	ICC-ES AC48, Section 4.7	No visible damage such as chipping or cracking
Ultraviolet Exposure	ICC-ES AC188	ICC-ES AC48, Section 4.8	No visible damage such as chipping or cracking
Liquid Water Transmission	ICC-ES AC188	ASTM D4869, Section 8.6	Shall show no sign of any liquid water wetness on either specimen underside or top of plywood support or visible deterioration of the specimen.

5. PRODUCT DESCRIPTION

TAM-FELT roofing underlayment material is asphalt impregnated organic felt supplied in rolls, nominally 144 ft (43.9 m) in length and 3 ft (0.9 m) in width with an approximate coverage area of 408 sq ft (37.9 m²) when installed with a two inch head lap.

6. INSTALLATION

TAM-FELT roofing underlayment material must be installed in accordance with the applicable code, this report and the manufacturer’s installation instructions. TAM-FELT roofing underlayment material must be installed over solid or closely spaced sheathing. Installation of TAM-FELT roofing underlayment material is limited to roof decks having a minimum slope of 2:12 and is not intended for use with hot roofing asphalt or coal tar pitch. Installation on roof decks having slopes 2:12 to 4:12 must be installed as specified in Section [1507.2.8](#) of the 2015, 2012 and 2009 IBC and Section R905.2.2 of the 2015 IBC and Section [R905.2.7](#) or the 2012 and 2009 IRC.

Prior to installing TAM-FELT roofing underlayment material, the deck surface shall be clean, smooth, dry and free of debris. Damaged sheathing must be replaced. In areas prone to high winds, installation must be in accordance with Section [1507.2.8.1](#) of 2015, 2012 and 2009 IBC, and Section R905.1.1 of the 2015 IRC and Section [R905.2.7.2](#) of the 2012 and 2009 IRC.

TAM-FELT roofing underlayment material is not intended to be left permanently exposed and an approved roof covering material shall be installed within the time stated in the manufacturer's installation instructions.

7. CLASSIFIED ROOFING

TAM-FELT roofing underlayment material may be used as an accessory component of a certified prepared roof covering system consisting of Class A asphalt glass fiber mat shingles and Class C asphalt organic felt shingles installed directly on minimum 3/8 inch-thick (12.0 mm) compliant exterior plywood sheathing or minimum $\frac{7}{16}$ -inch-thick (11 mm) oriented stranded broad (OSB) or minimum nominal 1 inch-thick (25 mm) wood plank complying with the applicable code under the 2015, 2012 and 2009 IBC and IRC.

Refer to the UL Certification Category for Prepared Roofing Accessories ([TG DY](#)), File R10827 for applicable coverage.

8. CONDITIONS OF USE

TAM-FELT described in this report complies with, or is a suitable alternative to what is specified in, those codes listed in Section 2 of this report, subject to the following conditions:

- 8.1** Materials and methods of installation shall comply with this report and the manufacturer's published installation instructions. In the event of a conflict between the installation instructions and this report, this report governs.
- 8.2** Installment of the roofing underlayments are limited to roof slopes of 2:12 (16.67%) and the roof covering material does not involve hot asphalt or coal tar pitch.
- 8.3** Installation of TAM-FELT is limited to use with roof material coverings that are mechanically fastened through the underlayment to the sheathing or rafters.
- 8.4** TAM-FELT is not intended for use under clay or tile or metal roof coverings.
- 8.5** Attic ventilation in accordance with the applicable code is required since vapor permeance of the underlayment is not addressed in these criteria.
- 8.6** TAM-FELT is manufactured under the UL LLC Classification and Follow-Up Service Program in Green Cove Springs, FL, which includes regular audits in accordance with ICC-ES Acceptance Criteria for Quality Documentation, AC10.

9. SUPPORTING EVIDENCE

- 9.1** Data in accordance with ICC ES AC188 and physical properties of ASTM D226 for TAM-FELT.
- 9.2** Manufacturer's descriptive product literature, including installation instructions.
- 9.3** UL test reports and Certification in accordance with ANSI/UL 790. See UL Product Certification Category for Prepared Roofing Accessories, File R10827 ([TG DY](#)).
- 9.4** Data in accordance with ANSI/UL 790.
- 9.5** Quality Documentation in accordance with ICC-ES Acceptance Criteria for Quality Documentation, AC10

10. IDENTIFICATION

TAM-FELT roofing underlayment materials described in this evaluation report are identified by a mark bearing the report holder's name (Tamko Building Products, Inc.), the product name, the UL Classification Mark, and the evaluation report number ER10827-01. The validity of the evaluation report is contingent upon this identification appearing on the product.

11. USE OF UL EVALUATION REPORT

- 11.1 The approval of building products, materials or systems is under the responsibility of the applicable authorities having jurisdiction.
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