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# Code Compliance Research Report CCRR-1041

Re-Issue Date: 01-01-2017  
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## DIVISION: 07 00 00 – THERMAL AND MOISTURE PROTECTION

### Section: 07 30 05 – Roofing Felt and Underlayment

#### REPORT HOLDER:

GT Industrial Products Company  
600 N 85<sup>th</sup> Street, Suite C-101  
Seattle, WA 98103  
(206) 471-0640  
[www.gti-products.com](http://www.gti-products.com)

#### REPORT SUBJECT:

GUARDMAX GMX-145 Roofing Underlayment

### 1.0 SCOPE OF EVALUATION

This Research Report addresses compliance with the following Codes:

- 2015, 2012, and 2009 *International Building Code*® (IBC)
- 2015, 2012, and 2009 *International Residential Code*® (IRC)

### 2.0 USES

The GUARDMAX GMX-145 roofing underlayment is used in the field of the roof as an alternative to ASTM D226, Type I and Type II roof underlayments specified in Chapter 15 of the IBC and Chapter 9 of the IRC. The underlayment may be used as a component of a classified assembly when installed as described in this report.

The underlayment has been evaluated for the following properties:

PROPERTY	IBC SECTION <sup>1</sup>	IRC SECTION <sup>1</sup>
Physical Properties	104.11, 1506, and 1507	R104.11, R904, and R905
Fire Classification	1505	R902.1

<sup>1</sup> Referenced sections apply to 2015, 2012, and 2009 IBC and IRC

### 3.0 DESCRIPTION

GUARDMAX GMX-145 is a 4-layer synthetic roofing underlayment, consisting of cross-woven polypropylene base scrim coated both sides, and laminated with non-woven fabric on the top side. Total

weight of GMX-145 is 2.97 pounds per 100 square feet. GUARDMAX GMX-145 roofing underlayment is blue in color on both sides. Standard roll size is 4 feet wide by 250 feet long but is available in custom sizes.

### 4.0 INSTALLATION

#### 4.1 General:

Installation of the underlayment must comply with the applicable Code, this report, and the report holder's published installation instructions.

The roofing underlayment must be installed in accordance with the subsections of IBC Section 1507 and IRC Section R905 applicable to the roof covering being installed. The roofing 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.

#### 4.2 Ice Barrier:

The GUARDMAX GMX-145 roofing underlayment has not been evaluated for use as an ice barrier. In areas of the roof required by IBC Section 1507 or IRC Section R905 to have an ice barrier, a self-adhering polymer modified bitumen sheet complying with ASTM D1970, or two layers of code-complying underlayment solidly cemented together must be used such that the ice barrier extends up the roof a minimum distance of 24 inches inside the interior wall line of the building. The roofing underlayment installed in the field of the roof must overlap the ice barrier.

#### 4.3 Fire Classification:

The roofing underlayment 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 underlayment may also be used as an alternative to the underlayment specified



130 Derry Court • York, PA 17406

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in the Code for roof coverings permitted under the Exceptions to IBC Section 1505.2 and IRC 902.1, and may be used where non-classified roofing is permitted in IBC Section 1505.5.

## 5.0 CONDITIONS OF USE

The GUARDMAX GMX-145 roofing underlayment described in this Research Report complies with, or is a suitable alternative to, what is specified in those Codes listed in Sections 1.0 and 2.0 of this report, subject to the following conditions:

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

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

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

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

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

**5.6** In areas of the roof required by IBC Section 1507 or IRC Section R905 to have an ice barrier, an ice barrier must be provided as described in Section 4.2.

**5.7** The underlayment is manufactured under a quality control program with inspections by Intertek Testing Services NA Inc. (AA-647).

## 6.0 SUPPORTING EVIDENCE

**6.1** Reports of tests in accordance with ASTM E108.

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

**6.3** Intertek Listing Report titled [GT Industry Products Company-GUARDMAX GMX-145 roofing underlayment](#).

## 7.0 IDENTIFICATION

The GUARDMAX GMX-145 roofing underlayment is imprinted with the product name, the company name (GT Industrial Products Company), the Intertek Mark, and the Code Compliance Research Report number (CCRR-1041). Each roll of the product is also labeled with installation instructions, roll dimensions, and weight.

## 8.0 OTHER CODES

This section is not applicable.

## 9.0 CODE COMPLIANCE RESEARCH REPORT USE

**9.1** 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.

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

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

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