



Code Compliance Research Report CCRR-1056

Valued Quality. Delivered.

Issue Date: 03-31-2016
Revision Date: 01-01-2018
Renewal Date: 01-01-2019

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

REPORT HOLDER:
TAMKO Building Products, Inc.
220 W. Fourth Street
Joplin, MO 64801
(800) 641-4691
www.tamko.com

REPORT SUBJECT:
SyntheticGuard and SyntheticGuard Plus Roofing Underlayments

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

SyntheticGuard and SyntheticGuard Plus roofing underlayments are used 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.

The underlayments may be used 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 4.2.

The underlayment may be used as components of classified assemblies when installed as described in this report.

The underlayments have been evaluated for the following properties:

| PROPERTY | IBC SECTION ¹ | IRC SECTION ¹ |
|---------------------|--------------------------|--------------------------|
| Physical Properties | 104.11, 1506, and 1507 | R104.11, R904, and R905 |
| Fire Classification | 1505 | R902.1 |
| Ice Barrier | 1507 | R905 |

¹ Referenced sections apply to 2015, 2012, and 2009 IBC and IRC

3.0 DESCRIPTION

SyntheticGuard is a synthetic underlayment comprised of a woven core, polypropylene non-woven scrim on the exposed side, and coating on the sheathing side. The underlayment is black on the exposed and sheathing sides. The nominal weight of the material is 2.11 pounds per 100 square feet, and is available in rolls 48 inches wide by minimum 250 feet long.

SyntheticGuard Plus is a synthetic underlayment comprised of a woven core, polypropylene non-woven scrim on the exposed side, and coating on the sheathing side. The underlayment is grey on the exposed and sheathing sides. The nominal weight of the material is 3.05 pounds per 100 square feet, and is available in rolls 48 inches wide by minimum 250 feet long.

4.0 INSTALLATION

4.1 General:

The underlayments must be installed in accordance with the manufacturer's published installation instructions, the applicable Code, and this Research Report.

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 underlayments 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 underlayments must be covered within the time designated in the report holder's published installation instructions.

4.2 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.



545 E. Algonquin Road • Arlington Heights • Illinois • 60005
intertek.com/building



4.3 Fire Classification:

The 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 CONDITIONS OF USE

The underlayments described in this Research Report comply with, or are 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 The underlayments are 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 "[TAMKO – Synthetic Roofing Underlayments](#)".

7.0 IDENTIFICATION

The SyntheticGuard and SyntheticGuard Plus underlayments are directly imprinted with the product and company name, lap lines, and fastener locations. Each package of the product is also labeled with the product name, company name, installation instructions, the Intertek Mark, and the Code Compliance Research Report Number (CCRR-1056).

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.

This Code Compliance Research Report ("Report") is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Report. Only the Client is authorized to permit copying or distribution of this Report and then only in its entirety, and the Client shall not use the Report in a misleading manner. Client further agrees and understands that reliance upon the Report is limited to the representations made therein. The Report is not an endorsement or recommendation for use of the subject and/or product described herein. This Report is not the Intertek Listing Report covering the subject product and utilized for Intertek Certification and this Report does not represent authorization for the use of any Intertek certification marks. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek.



Intertek

545 E. Algonquin Road • Arlington Heights • Illinois • 60005
intertek.com/building



PCA-101