

ICC-ES Evaluation Report

ESR-3041
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A Subsidiary of the International Code Council®

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION
Section: 07 40 00—Roofing and Siding Panels

REPORT HOLDER:

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EVALUATION SUBJECT:
OPUS™ ROOF BLANKET
1.0 EVALUATION SCOPE
Compliance with the following codes:

- 2006 *International Building Code*® (IBC)
- 2006 *International Residential Code*® (IRC)

Properties evaluated:

- Physical properties
- Fire classification

2.0 USES

OPUS™ Roof Blanket is a synthetic roofing underlayment intended for use as an alternative to the ASTM D 226, Type I and Type II, roofing underlayment specified in Chapter 15 of the IBC and Chapter 9 of the IRC. The underlayment may be used as a component of classified roofing assemblies when installed as described in this report.

3.0 DESCRIPTION

OPUS™ Roof Blanket is a multilayer laminated underlayment comprised of polypropylene fabrics. The underlayment top face is light brown in color. The material has a nominal weight of 3.64 pounds per 100 square feet (177g/m²) and is produced in rolls of varying lengths that may be 42 inches (1067 mm) or 21 inches (533 mm) wide. The underlayment has a water-vapor transmission rate not exceeding 1 perm when tested in accordance with ASTM E 96.

4.0 DESIGN AND INSTALLATION
4.1 General:

Installation must comply with the applicable code, this evaluation report and the manufacturer's published

installation instructions. The manufacturer's published installation instructions must be available at all times during installation.

Prior to application of the underlayment, the roof deck surface must be free of frost, dust and dirt, loose nails, and other protrusions. Damaged sheathing must be replaced. For reroofing applications, the same procedures apply after removal of the existing roof covering and roofing felts to expose the roof deck.

4.2 One-layer Applications:

In areas of the roof where one layer of underlayment is allowed under Chapter 15 of the IBC or Chapter 9 of the IRC, the underlayment must be laid printed side up horizontally (parallel to the eave) starting at the lower edge of the roof, with 3-inch (76.2 mm) horizontal (head) laps and 6-inch (152 mm) vertical (end) laps. Minimum roof slope is 2:12 (17 percent).

The underlayment must be fastened to the roof deck using minimum No. 12 gage diameter [0.109 inch (2.77mm)], corrosion-resistant roofing nails having minimum 1-inch-diameter (25.4 mm) plastic washers or 16 gage cap-staples. The fasteners must be spaced 8 inches (203 mm) on center at vertical and horizontal laps except in areas subject to basic wind speeds (3-second gust) in excess of 110 miles per hour (177 km/hr), where fasteners must be spaced 4 inches (101.6 mm) on center at vertical and horizontal laps. Fasteners must be long enough to penetrate into the sheathing a minimum of ³/₄ inch (19.1 mm) or through the sheathing, whichever is less. When battens are installed over the underlayment, the underlayment need only be preliminarily attached pending attachment of the battens or counterbattens. A single layer of minimum 21-inch-wide (533 mm) underlayment must be installed and centered vertically at all valleys before underlayment is laid in the field, and at all hips and ridges after field placement. The underlayment must be installed over the drip edge flashing along the eaves, and under the drip edge flashing along the rake. At intersections with vertical surfaces such as walls, the underlayment must be installed with 8-inch (203 mm) laps up the vertical surface.

Installation of an approved roof covering can proceed immediately following application of the underlayment. The underlayment must be covered by the roof covering within the time period set forth in the manufacturer's published installation instructions.

For reroofing applications, the same procedures apply after removal of the existing roof covering and roofing felts to expose the deck.

4.3 Two-layer Applications:

Where the slope is from 2:12 (17 percent slope) up to 4:12 (33 percent slope) and the roof is to be covered with asphalt shingles, or where the slope is from 2¹/₂:12 (21 percent slope) up to 4:12 (33 percent slope) and the roof is to be covered with concrete or clay roof tiles, the underlayment must be horizontally lapped 24 inches (610 mm), with the centerline of the underlying course to form two layers with 6-inch (152 mm) vertical laps. Seams in laps must be sealed with adhesives complying with ASTM D 4586, Type 1. Subsequent courses of underlayment must be installed parallel to the eave, from the lower edge upwards to the ridge, in a shingle manner. The underlayment must be mechanically fastened as specified in Section 4.2.

In areas where the roof is required to have an ice barrier under Chapter 15 of the IBC or Chapter 9 of the IRC, two layers of the underlayment must be cemented together with a roofing cement complying with ASTM D 4586, and extend from the lowest edge of all roof surfaces to a point at least 24 inches (610 mm) inside the exterior wall line of the building. OPUS™ Roof Blanket underlayment, in the field of the roof, must overlap the ice barrier protection.

Installation of an approved roof covering can proceed immediately following application of the underlayment. The underlayment must be covered by the roof covering within the time period set forth in the manufacturer's published installation instructions.

For reroofing applications, the same procedures apply after removal of the existing roof covering and roofing felts to expose the deck.

4.4 Flashing:

Flashing must be in accordance with the applicable code. Flashing around protrusions must be over the lower course of the underlayment and under the upper course of the underlayment, to prevent water backup. Metal drip edges must be over the underlayment at gable ends and under the underlayment at eaves.

4.5 Roof Classification:

The underlayment may be used as an alternate to the underlayment specified in the applicable code for roof coverings of brick, masonry, slate, clay or concrete roof tile, exposed concrete roof deck, ferrous or copper shingles or sheets, metal sheets and shingles. The noted roof coverings may be used as indicated in IBC Section

1505.2 or 1505.3 or IRC Section R902.1, wherever a Class A, B or C roof covering assembly is required.

5.0 CONDITIONS OF USE

The OPUS™ Roof Blanket underlayment described in this report complies with, or is a suitable alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 Installation must comply with this report, the manufacturer's published installation instructions, and the applicable code. In the event of conflict between the published installation instructions and this report, this report governs.
- 5.2 Installation is limited to roofs with a minimum slope of 2:12 (17 percent) or to the minimum slope required for the roof covering in accordance with the applicable code, whichever is greater.
- 5.3 Installation is limited to use with roof coverings that do not involve hot asphalt or coal-tar pitch.
- 5.4 Installation is limited to use with approved roof coverings that are mechanically fastened through the underlayment to the sheathing or rafters or to use with approved roof coverings that are mechanically fastened to battens or counterbattens that are mechanically fastened through the underlayment to the sheathing or rafters.
- 5.5 Installation is limited to roofs with ventilated attic spaces in accordance with the requirements of the applicable code.
- 5.6 The products are manufactured under a quality control program with inspections by Quality Control Consultants, Inc. (AA-727).

6.0 EVIDENCE SUBMITTED

- 6.1 Data in accordance with the ICC-ES Acceptance Criteria for Roof Underlayments (AC188), dated July 2007, and the ICC-ES Acceptance Criteria for Polypropylene Roof Underlayments (AC207), dated September 2002 (editorially revised March 2005).
- 6.2 Report of testing in accordance with ASTM E 108.

7.0 IDENTIFICATION

Each roll of the roofing underlayment is marked with the company name (Propex Operating Company, LLC) and address, name of the product (OPUS™ ROOF BLANKET), the manufacturing date code, the evaluation report number (ESR-3041) and the name of the inspection agency (Quality Control Consultants, Inc.)