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toughSKIN[®] 20

roof underlayment by **OX**

With Slipsafe[®] Technology

Toughskin[®] is an engineered, mechanically attached synthetic underlayment for sloped roofs, designed to meet the needs of today's roofing.

Toughskin's[®] high-strength design is 25x stronger than 15 lb. Saturated Felt and 5x lighter than 30 lb. Saturated Felt. With each roll having 10 squares of coverage (48" x 250'), your installations will be faster, and more efficient - with fewer laps, cuts and less handling when compared to felt.

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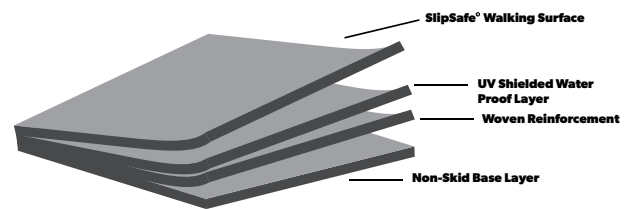
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Intertek
 C# 720038 CCRR-1069 ASTM D226, ASTM E108; ICC-ES AC188; CSA A220; CSA A123.3

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More Coverage

33% more coverage per lap (48" compared to 36" for felt)

Strength

25 x stronger than 15 lb. felt

Ease of Installation

Wider, lighter, more coverage per lap (48" compared to 36" for felt)

Environmentally Friendly

No oil leaching - no hazardous material content

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Attributes

- Code Approved-Meets AC188
- Enhanced UV-180 days exposure
- 25x stronger than 15 lb. felt
- 6 squares more per roll compared to 15 lb. felt
- 33% more coverage per lap (48" compared to 36" for felt)
- Ease of installation - wider, lighter, more coverage per lap.
- No oil leaching - no hazardous material content
- Class A Fire - ASTM E 108 (as part of a system)
- Low Temperature flexibility

ToughSkin 20

Roll Size	1,000 ft ² (10 squares)
Roll Dimensions	48" x 250'
Weight per Roll	21 lbs / roll
Rolls per Pallet	64
UV Exposure Limit	6 months (MAXIMUM)
Tensile Strength ASTM D1970	MD=87 CD =59
Tear Strength ASTM D5733	MD=35 CD =38

Certified: Intertek CCRR-1069: AC-188; ASTM-D226; ASTM E-108; CSA A123.3; Miami-Dade Compliant

ToughSkin Roofing Underlayment Installation

General

Installation of ToughSkin underlayment must comply with the applicable building codes, this report and the manufacturer's published installation instructions. The installation instructions must be available at the jobsite at all times during installation.

Prior to application of Toughskin, the deck surface must be dry and free of dust, dirt, loose nails and other protrusions. Damaged sheathing must be repaired or replaced.

Application

Toughskin underlayment is designed for roofing slopes of 2:12 to 4:12 it is recommended to overlap 50% plus 1", for complete definition of low slope and guidelines consult local building code officials.

Metal drip edge should be placed under ToughSkin at the eave and over ToughSkin along the rake edge. If eave metal will be installed after the underlayment is applied, the first row of fasteners should

be placed 3-inches (76mm) up from the eave so that the metal edging can be slipped under the underlayment before nailing.

Horizontal overlaps should be 4-inches (102 mm) running with the flow of water in a shingle fashion. Vertical end overlaps should be 6-inches (152 mm).

ToughSkin may be installed using standard roofing nails having a 3/8 inch (9.5 mm) diameter head. Low profile plastic or metal cap nails with 1-inch (25.4 mm) caps may be used when preferred or required by local codes. Fasteners should be long enough to penetrate through the sheathing or a minimum of 3/4 inch (19.1 mm) into solid decking.

For standard application, fasteners are spaced 12-inches (305 mm) along the top, bottom and side laps and 24-inches (610 mm) along two rows staggered and spaced 1/3 and 2/3 up into the field of the underlayment.

If ToughSkin underlayment will be left exposed for more than three days or if severe weather is predicted before shingles will be installed, fasteners should be spaced 6-inches (153 mm) along the top, bottom and side laps and every 12-inches (305 mm) along two rows staggered and spaced 1/3 and 2/3 up into the field of the underlayment. The correct fastener placement is clearly marked on the surface of ToughSkin underlayment - for both installations. In areas subject to high winds, underlayment fastening must comply with the high-wind attachment requirements specified in IBC Section 1507 or IRC Section R905.

Classified Roofs

Under the 2015, 2012 and 2009 IBC & IRC, the roofing underlayments may be used as components of classified roof assemblies consisting of Class A or C glass fiber mat shingle or Class C asphalt organic felt shingle complying with the applicable code, when installed in accordance with this report over a minimum 5/8-inch thick (15.9 mm) plywood deck.

Under the 2006 IBC, the underlayment may also be used in Class A or Class B roof assemblies that utilize the roof coverings specified in the exception to Sections 1505.2 and 1505.3. Under the 2006 IRC, the underlayment may be used with roof coverings of brick, masonry, slate, clay or concrete roof tile, concrete roof deck, ferrous or copper shingles or sheets, and metal sheets and shingles where such roof coverings are permitted to be used in lieu of a Class A assembly under Section 902.1.

Ice Barrier

In areas of the roof where an ice and water barrier is required under the IBC or IRC, a self-adhered polymer modified bitumen sheet complying with ASTM D1970, or an underlayment recognized for use as an ice barrier in a Code Evaluation Report, must be applied over the solid substrate in sufficient courses so that the underlayment extends up the roof a minimum distance of 24 inches (610mm) inside the interior wall line of the building. Toughskin underlayment is installed above the ice dam protection with a 4-inch (102 mm) horizontal lap.