

GLACIER GUARD™ 400

Non-Skid Roofing Underlayment

DESCRIPTION

Glacier Guard™ 400 roofing underlayment is a 40-mil self-adhering sheet membrane. Glacier Guard 400 is comprised of a strong, skid-resistant polyethylene film laminated to a thick layer of highly adhesive rubberized asphalt. A siliconized release sheet is used to prevent the material from sticking in the roll and is easily stripped away for installation.

INSTALLATION

General Information: Glacier Guard roofing underlayments are applied when the roof deck is dry and the substrate temperature is 40°F (4.4°C) or higher. At temperatures below 40°F, nailing or priming should be used to temporarily hold the membrane in place while adhesion develops. Glacier Guard 400 is designed to be covered with the primary roofing system and should not be exposed to sunlight for more than 60 days.

Moisture: Substrate must be free of any moisture. If moisture is present, it may inhibit adhesion.

New Construction: Prepare the roof deck by removing all loose objects, dirt, dust or debris.

Re-roofing: Remove all old materials from the roof deck in the area to be covered with Glacier Guard roofing underlayment. Replace water-damaged sheathing and sweep roof deck thoroughly.

Priming: Priming is not required on clean, dry wood or metal surfaces but concrete masonry, exterior gypsum board and polyisocyanurate insulation should be primed using the appropriate adhesive. Adhesives are required when temperatures are below 40°F.

Valleys, Hips & Ridges: Cut Glacier Guard 400 roofing underlayment into manageable lengths. Align over the center of the valley, hip or ridge. Remove release film. Press the middle of the membrane first before working toward the edges. For open valleys, cover Glacier Guard roofing underlayment with metal valley liners.

Eaves & Rakes: Cut Glacier Guard roofing underlayment into 10-15' pieces. Remove 2-3' of release film and align the edge of the membrane, sticky side down, so it overhangs the drip edge by 3/8" (10 mm). Continue to remove release film and press as you move across the roof. Use a hand roller and/or hand pressure to press into place. Overlap end laps a minimum of 6". Glacier Guard 400 roofing underlayment should reach a point 2' inside the interior wall line. Local codes may require additional courses. If additional courses are required, the top lap must be at least 3.5".

Drip Edges: At the rake edge, apply Glacier Guard roofing underlayment first and place drip edge on top. At the eave, apply drip edge first and place Glacier Guard roofing underlayment on top of the drip edge so that it overhangs drip edge 3/8" (10 mm).

ADVANTAGES

Glacier Guard 400 underlayment provides immediate adhesion and a watertight seal around fasteners. Glacier Guard 400 membranes bond directly to the roof substrate for fast and easy installation without the need for additional adhesives. Glacier Guard 400 will not crack, dry out or rot and provides long-term waterproofing performance. Glacier Guard 400 features an exposed rubberized asphalt bead along the edges that helps ensure the water tightness of the lap seams. Glacier Guard 400 is a concealed waterproofing system that will not detract from the architectural aesthetics of the primary roofing system.

LIMITATIONS

Glacier Guard 400 should be installed when air, roof deck and membrane temperatures are at or above 40°F (4.5°C). Glacier Guard 400 should not be left exposed to sunlight for more than 60 days. Glacier Guard 400 membrane should not be folded over the roof edge unless protected by a gutter or other flashing materials. The primary roof system must be ventilated to prevent excessive moisture build-up in the interior structure. Use caution during the installation of the membrane as it may become slippery when wet or covered with frost. Glacier Guard 400 should not be used under metal roofs and is not to be used in contact with flexible PVC material. Do not apply when ambient temperature is below 40°F. Consult a EcoStar Representative for extreme high- or low-temperature applications. Applications below 40°F may require nailing of the membrane. Glacier Guard 400 roofing underlayment rolls should be stored on end, under cover and in areas where the temperature is between 40° and 100°F (4.4° and 38°C). Do not double-stack pallets.

PRODUCT SPECIFICATIONS

PRODUCT COMPONENTS

Surface	Black Engineered Polyolefin Composite Film with Factory-applied Anti-skid Coating
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Membrane	Rubberized Asphalt
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PRODUCT CHARACTERISTIC

	Units	Results
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Length	feet	75
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Width	inches	36
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Weight	lbs.	62
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Coverage/Roll	sq./ft.	225
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PHYSICAL PROPERTIES

	Units	Results
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Thickness (D-1970)	mil.	40
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Low Temperature Flexibility (D-1970)	°F	-40
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Adhesion to Plywood at 75°F (D-1970)	lbs./ft.	35
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Lap Seam Adhesion at 75°F (D-1970)	lbs./ft.	21
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Sealability Around Nail (D-1970)		Pass
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Slip Resistance (D-1970)		Pass
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Thermal Stability (D-1970)		Pass
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Moisture Vapor Permeance (D-1970)	Perms	0.02
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Water Absorption (D-1970)	%	0.5%
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Tensile Strength Machine Direction (D-412)	psi	1200
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Tensile Strength Transverse Direction (D-412)	psi	1390
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Elongation at Break Machine Direction (D-412)	%	490
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Elongation at Break Transverse Direction (D-412)	%	170
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PACKAGING INFORMATION

Boxes (rolls) per pallet		25
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APPLICABLE STANDARDS

2009 International Building Code™; ICC-ES ESR #2206;
US-UL Classified; Meets ASTM D1970;
State of Florida Approved Product FSA #FL6785

WARRANTIES

EcoStar warrants this product to be free of defects in workmanship and materials at the time of shipment from EcoStar's factory. EcoStar will at its option either supply new product or refund the purchase price of any product found to be defective hereunder.

EcoStar's limited warranties are the only warranties extended by EcoStar with respect to its materials. There are no other warranties, including the implied warranties of merchantability and fitness for a particular purpose. EcoStar specifically disclaims liability for any incidental, consequential, or other damages, including but not limited to, loss of profits or damages to a structure or its contents, arising under any theory of law whatsoever.

The dollar value of EcoStar's liability and buyer's remedy under this limited warranty shall not exceed the purchase price of the EcoStar material in question.



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PRODUCT TECHNICAL DATA