

High-Temperature Underlayment Applications



Best-in-class MetShield® ice and water underlayment protects the roof structure from water seepage caused by ice dams and wind-driven rain. Designed specifically for high-temperature applications of metal roof installations, it will resist temperatures up to 250° without degradation of the adhesive, and self-seals around roofing nails, screws and clips used to install the primary roofing system. This high-tensile strength underlayment is a 40 mil SBS modified bitumen with a UV-resistant anti-slip polyethylene woven top facer and is required under all Drexel Metals roof warranted systems.

Features and Benefits

- Protects the roof structure from water seepage caused by ice dams and wind-driven rains
- Resists temperatures up to 250°F without degradation of the adhesive
- Seals around roofing nails, staples and screws
- Bonds directly to the roof substrate for fast and easy installation without the need for additional adhesives
- Split-release film provides easier, faster installation
- Resists cracking, drying and rotting, providing long-term waterproofing performance and low lifecycle cost
- Concealed waterproofing system will not detract from the architectural aesthetics of the primary roofing system
- Exposed rubberized asphalt bead along the membrane edge ensures watertightness of lap seams
- Made in USA

Standards

- UL Classified
- ICC-ES ESR #2206
- 2009 and 2012 International Building Code™
- Florida Building Code Approved Product
- Meets ASTM D1970

Storage

MetShield 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.

Warranty

MetShield is backed by Drexel's industry-leading warranty. Visit our website for warranty details.

Installation

MetShield underlayment is 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. MetShield is designed to be covered with the primary roofing system and should not be exposed to sunlight for more than 120 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 and debris.

Re-roofing: Remove all old materials from the roof deck in the area to be covered with MetShield underlayment.

MetShield® High-Temp Underlayment

Replace water-damaged sheathing and sweep roof deck thoroughly.

Priming: Priming is not required on clean, dry wood, metal or most polyisocyanurate surfaces. Masonry and exterior gypsum boards (such as DensDeck®) should be primed using an appropriate primer or adhesive. Some rigid insulation boards with porous or dusty surfaces may require priming to promote initial adhesion. Priming is required on all substrates when air or substrate temperatures are below 40°F (4.4°C). Adhesives such as CCW-702, CCW-702WB, CAV-GRIP™ and CCW-AWP are approved for use with Drexel MetShield. Refer to your local building codes to determine acceptable product for use in your region.

Selection of roof deck or insulation substrate and/or use of a primer or adhesive are the responsibility of the architect, specifier or roofing contractor to determine based on the roof assembly and environmental conditions.

Valleys, hips and ridges: Cut MetShield 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 MetShield roofing underlayment with metal valley liners.

Eaves and rakes: Cut MetShield 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". MetShield 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 3-1/2".

Drip edges: At the rake edge, apply MetShield underlayment first and place drip edge on top. At the eave, apply drip edge first and place MetShield underlayment on top of the drip edge so that it overhangs drip edge by 3/8" (10 mm). For standard installation details, follow the MetShield detail drawings. For non-standard installation instructions, contact your local Drexel Metals representative.

Metal roof underlayment: Under water-shedding metal roof systems or low-slope metal roofs with a minimum 1/2" slope, start at the low point and apply MetShield over the full surface of the roof deck. Review the metal roofing manufacturer's instructions for limitations and precautions. Beginning at the eaves, apply underlayment from the low point to the high point of the roof, running the roll horizontally.

Limitations

- MetShield should be installed when air, roof deck and membrane temperatures are at or above 40°F (4.4°C).
- MetShield should not be left exposed to sunlight for more than 120 days.
- MetShield 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.
- MetShield must not to be used in contact with flexible PVC material.
- MetShield not approved for use in foam set tile applications.

Product Specifications

Physical Properties	
Surface	Black/White Engineered Polyolefin Composite Film with Factory-applied Anti-skid Coating
Membrane	Rubberized Asphalt

Product Characteristic	Units	Results
Roll Length	feet	66
Roll Weight	lbs	55
Roll Size	sq/ft	198
Roll Width	inches	36

Typical Performance Properties	Test Method	Results
Thickness	ASTM D1970	40 mils
Low Temperature Flexibility	ASTM D1970	-45°F
Adhesion to Plywood at 75°F	ASTM D1970	35 lbs/ft
Lap Seam Adhesion at 75°F	ASTM D1970	21 lbs/ft
Sealability Around Nail	ASTM D1970	Pass
Slip Resistance	ASTM D1970	Pass
Thermal Stability	ASTM D1970	Pass
Moisture Vapor Permeance	ASTM D1970	0.02 perms
Water Absorption	ASTM D1970	0.5%
Tensile Strength Machine Direction	ASTM D412	250 psi
Tensile Strength Transverse Direction	ASTM D412	1390 psi
Elongation at Break Machine Direction	ASTM D412	250%
Elongation at Break Transverse Direction	ASTM D412	170%

Packaging Information	
Boxes (rolls) per pallet	25



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