

BEMO-Shield Plus®

HT Water Air and Vapor Shield for Roofs and Walls

Roll Size: 60" Product Size: No.: MEMBS02100000, Roll Size: 30" Product No.: MEMBS01100000

Product Description

BEMO-Shield Plus is a self-adhered, non-asphaltic water, air and vapor roof and wall underlayment designed for applications either direct to deck or over a thermal barrier board. BEMO-Shield Plus is made from a proprietary high strength polypropylene sheet with a very aggressive adhesive layer that effectively bonds to virtually all deck types.

BASIC USE

BEMO-Shield Plus can be installed on all roof slopes 1/4"/12 and greater and walls. BEMO-Shield Plus creates a barrier against water, vapor and air infiltration.

MATERIALS

BEMO-Shield Plus consists of a proprietary polypropylene film with a very aggressive pressure-sensitive adhesive protected by a siliconized release film, which is removed during installation.

BENEFITS

Impermeable to water, air, and moisture vapor.

Non-asphaltic product eliminates the melting issue of traditional "peel and stick" underlayments

Replaces 40mil underlayment, offering a significant weight reduction per roll compared to 40mil. Better installation efficiency.

12 month UV and weather exposure makes membrane ideal for long-term projects.

All weather installation underlayment can be applied in virtually all weather conditions including 20°F (-6°C) and rising without the use of primer.

Top surface is slip resistant, UV stable, and resistant to punctures, tears, and foot traffic.

Compatible with many building sealants: no adverse reaction with synthetic rubber, butyl, polyurethane, silicone and silane terminated hybrid sealants.

Ensures crew safety and a healthy building, no VOC exposure, no Red List Chemicals, no primers, or protective gear required for installation

Product Applications

BEMO-Shield Plus is typically installed on the warm side, below rigid foam insulation in a compact insulated roof deck.

- Poly iso rigid insulation
- Plywood
- Apply directly to galvanized or painted steel Type B Deck
- Gypsum
- Apply to thermal board fastened to galvanized steel deck
- Structural Concrete*
- Spray foam Insulation
- OSB

*Disclaimer: It is the designer's responsibility to specify this product for the appropriate application.

The aggressive self-adhered underlayment **does not require a primer*** and is easily applied to most roof and wall substrates. It may be **applied directly to a steel deck** or a thermal board.

BEMO-Shield Plus vapor and air barrier may be used in steep slope vented roof decks and vented attic assemblies. This product features 12 month exposure, walkability, traction, and nail sealability. The self-adhered underlayment has extreme adhesion to plywood, OSB, and gypsum substrates.

Class A UL Fire Rating

BEMO-Shield Plus has a Class A UL Fire Rating, UL 790 and CAN/ULC-S107. Utilizing a 1/4" thermal board applied to the roof deck will create a UL Class roof assembly.

Technical Data & Environmental

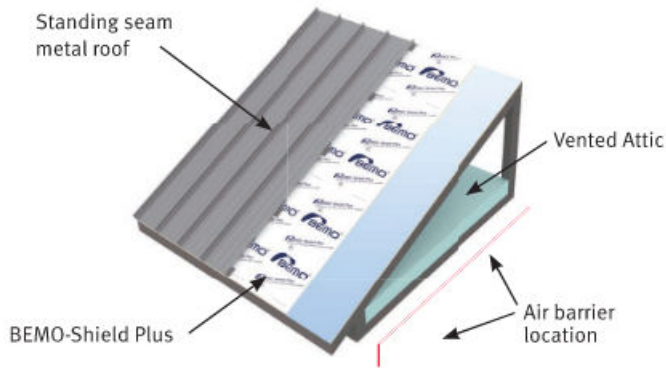
No Red List Chemicals. Contains 18-20% post industrial recycled content.

PHYSICAL PROPERTIES	
PROPERTY	RESULT
Color	White
Thickness	10.2 mil (0.26 mm)
Membrane Weight (without release film)	0.95 oz/yd ² (289 g/m ²)
60" Roll Weight (with release film)	48 lbs (22 kg)
30" Roll Weight (with release film)	25 lbs (11 kg)
Roll Dimensions	60" x 100' (1.5 m x 30.5 m) 30" x 100' (.76 m x 30.5 m)
Roll Coverage	60" 500 ft ² (46.5 m ²) gross 30" 250 ft ² (23.2 m ²) gross
Net Coverage	475 sf (44.1 m ²)
Rolls Per Pallet	60
Primer	No Primer Required*
VOCs	None
Field Exposure Before Permanent Roofing Materials	12 months
Minimum Application Temperature	20°F (-6°C)
Service Temperature	-40°F (-40°C) to 250°F (121°C)
Certifications	Passes UL fire certification for roofs UL 790 and CAN/ULC-S107
Warranty	20 year material warranty

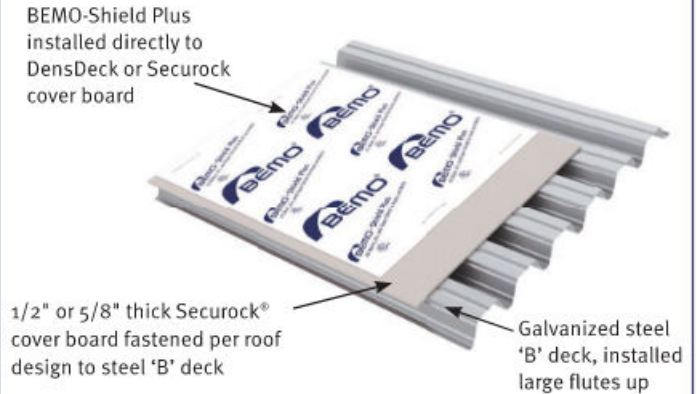
PRODUCT DATA SHEET

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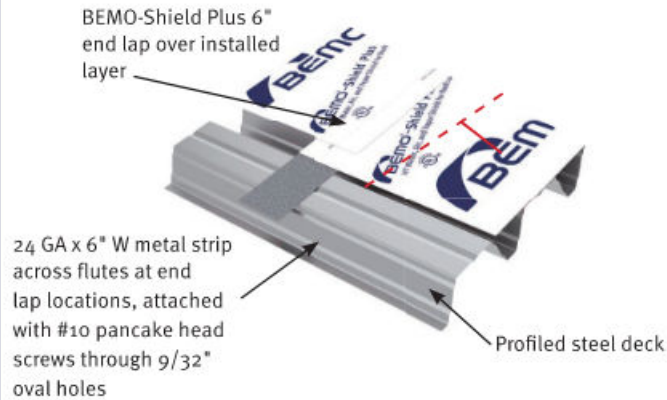
BEMO-Shield Plus Installed Directly To Rigid Insulation



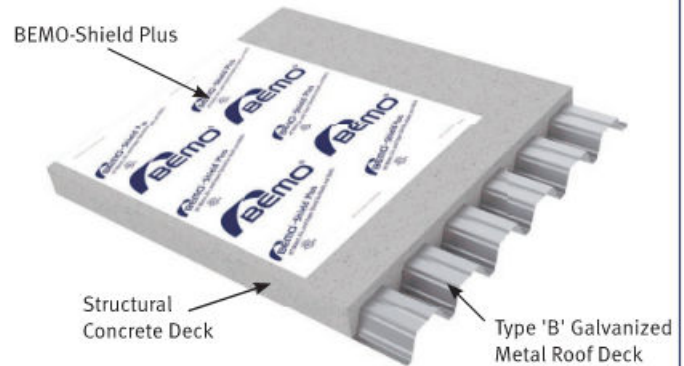
BEMO-Shield Plus Installed on Cover Board or Concrete



BEMO-Shield Plus End Lap over Metal Deck or Concrete



Structural Concrete Roof Decks



Installation

STORAGE AND HANDLING

Store material rolls on end or side in original packaging. Protect rolls from direct sunlight and inclement weather until ready for use.

SAFETY

Persons who access any roofs, involved with roof construction, repair or maintenance shall use appropriate personal protective equipment including, but not limited to, hard hats, eye protection, and leather gloves and must be trained on safe practices relevant to their work.

Where the use of ladders, scaffolds, platforms, or temporary floors are utilized, safety lines and safety harnesses shall be used. Please access the OSHA Web site at www.osha.gov, contact your local OSHA office, or visit the local federalbookstore to obtain the most current information on OSHA 29 CFR 1926.

PREPARATION

Steel surfaces must be clear of any oil residue and moisture. Wood decks must be dry to the touch and clear of dirt and dust. BEMO-Shield Plus can be installed in 20°F (-6°C) and rising temperatures. BEMO-Shield Plus surface is white, reducing the overall temperature gain during installation.

BEST PRACTICE INSTALLATION

Install BEMO-Shield Plus roofing underlayment and related accessories according to manufacturer's separate written installation instructions. All overlaps must be a minimum of 3" (8 cm), and 6" (16 cm) for end laps. Shingled laps are required.

LIMITATIONS

BEMO-Shield Plus should be covered within 12 months of installation with permanent roofing material.

Warranty

A 20-year material warranty is available.



Bemo USA Corporation

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visit www.bemousa.com. For more information call or email at techservices@bemousa.com.

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TESTING DATA		
PROPERTY	STANDARD	RESULT
Strength		
Elongation	ASTM D412 Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers—Tension	MD - 409% XMD - 276%
Tensile Strength	ASTM D412 Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers—Tension	MD - 16.96 MPa (2460 psi) XMD - 11.87 MPa (1721 psi)
Dry Tensile Strength	ASTM D882 Standard Test Method for Tensile Properties of Thin Plastic Sheeting	MD - 3.85 N/mm (22 lbf/in) XMD - 3.85 N/mm (22 lbf/in)
Elongation at Break	ASTM D882 Standard Test Method for Tensile Properties of Thin Plastic Sheeting	MD - 541% XMD - 617%
Dry Breaking Force (Grab method) MD ≥40 XMD ≥35	ASTM D5034 Standard Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test)	MD - 338 N (76 lbf) XMD - 356 N (80 lbf)
Elongation at Break	ASTM D5034 Standard Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test)	MD - 120% XMD - 157%
Minimum Puncture Resistance	ASTM E154 Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover	Deflection 5.84 cm (2.3") Max Load 249 N (56 lbf)
Cold Mandrel Bend Test	AC38 Section 3.3.4	PASS
Weathering Tests	AC38 Section 4.1.2 UV Exposure AC38 Section 4.1.3 Accelerated Aging	PASS
Water Vapor Transmittance		
Water Vapor Transmission Desiccant Method Procedure A 23°C (73.4°F) 0-50 %RH	ASTM E96 Standard Test Methods for Water Vapor Transmission of Materials	0.0173 Perm (grain/h•ft²•inchHg) @23°C 100%RH 0.992 ng/Pa•s•m²
Water Vapor Transmission Using Modulated Infrared Sensor	ASTM F1249 Standard Test Method for Water Vapor Transmission Rate Through Plastic Film and Sheeting Using a Modulated Infrared Sensor	0.0193 Perm (grain/h•ft²•inchHg) 1.10 ng/Pa•s•m² (23°C 0-50 %RH)
Air Resistance Testing		
Air Permeance	ASTM E2178 @75 Pa Standard Test Method for Air Permeance of Building Materials	0.00912 L/s•m² @ 75 Pa (0.0018 cfm/ft² @ 1.57 psf)
Water Resistance Testing		
Nail Sealability	ASTM D1970 Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection Section 7.9 referring to ASTM D7349 protocol 4 with modifications	PASS
Water Resistance (Control after Weathering)	AATCC 127 Hydrostatic pressure test (550 mm water column for 5 hours), American Association of Textile Chemists and Colorists	PASS
Fire Testing		
Flame Spread Smoke Developed	ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials	Class A Flame Spread 5 Smoke Developed 15
UL	UL790 Test Method of Fire Tests for Roof Coverings, CAN/ULC-S107	PASS

Roof Testing

PROPERTY	STANDARD	RESULT
Uplift Strength	FM LPDS 1-52 Field Verification of Roof Wind Uplift Resistance	Steel Deck 11.12 kN/m² (232.5 psf)
90-Degree Peel Strength	ASTM D3330 Standard Test Method for Peel Adhesion of Pressure-Sensitive Tape. Method F	Steel Deck 879 N/m (5.02 lb/in)
		Gypsum Board 751 N/m (4.29 lb/in)
		Coated Fiberglass Faced Board 380 N/m (2.27 lb/in)
Wear Resistance	Wheelbarrow Testing	PASS



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visit www.bemousa.com. For more information call or email at techservices@bemousa.com.



BASE/PLY SHEET FOR ROOFING SYSTEMS AS TO AN EXTERNAL FIRE EXPOSURE SEE UL DIRECTORY OF PRODUCTS CERTIFIED FOR CANADA AND UL ROOFING MATERIALS AND SYSTEMS DIRECTORY (R40823)