

BITEC® MAT-40 is a durable waterproofing underlayment reinforced with high-strength, dimensionally stable polyester in combination with a fiberglass scrim. MAT-40 resists punctures and tears and can be used in both residential and commercial applications for tile and metal roofs. MAT-40 is easy to apply and provides superior waterproofing protection. It is coated with a specially formulated 100% SBR polymer modified adhesive applied to the roll's bottom surface. A split release film, treated with silicone, is applied to the adhesive surface to facilitate application. The top surface is composed of polyester fabric that provides slip resistance and a surfacing for adhesion of tile in polyurethane foam. A 3" selvage edge is applied to the top surface to create a waterproof seal at side laps.

FEATURES & BENEFITS

MAT-40 also provides the following features and benefits:

- Meets or exceeds the criteria of:
 - * ASTM D1970 Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection
- Can be applied in conditions where roof temperatures reach 260°F (126.7°C)
- Monolithic coating and saturating process means optimum waterproofing performance and pliability for ease of application
- Retains roof-loaded tiles with no degradation of waterproofing properties
- Can be left exposed to weather for 120 days without deterioration or substantial physical property changes
- Self-sealing around nails and staples
- Economical

PACKAGING

Roll package: Protective cardboard carton

Rolls per pallet: 20

Pallets per truckload (typical): 22

APPROVALS

NEMO Certified D5673626J

STANDARD SPECIFICATION(S):

ASTM D1970

APPLICATION & GENERAL GUIDELINES



Prior to application, make certain that all surfaces to receive MAT-40 are clean, smooth, and dry. Small amounts of dust,

moisture, and contamination can affect the adhesive properties of the product.

BITEC recommends that asphalt primer (ASTM D 41) be applied to all masonry, metal, and wood / plywood surfaces receiving the factory installed adhesive. NOTE: It is not necessary to use primer on exposed metal roof panels.

Application is performed by beginning at the lowest point of the roof. Install courses of material with die laps running perpendicular to the roof slope. Stagger and offset end laps by at least 3' (0.9 m). Install with minimum 3" (76 mm) side laps and minimum 3" (76 mm) end laps. The release film on the bottom side of the roll must be removed as the sheet is applied to provide proper adhesion to deck surfaces. NOTE: The plastic selvage edge film is NOT intended to be removed during adhesion of the side laps and should remain in place.

Using a 75 lb (34 kg) roller, apply pressure to the entire surface area of the underlayment to remove any trapped air and ensure the best possible adhesion. Care must be exercised to eliminate wrinkles and back-water laps in the membrane. This will require pre-planning for conditions such as edges, walls, valleys, hips, ridges, curbs, and roof penetrations.

It is recommended, but is not required, to supplement the watertight seal at end laps using modified adhesive or urethane sealant. Then, apply pressure evenly using a weighted roller over the end lap to create a proper seal.

Treat valleys, roof penetrations, hip and ridge, as well as eaves, just as when applying organic felt underlayment. It may be necessary to consult the metal roof or tile manufacturer for system-specific substrate requirements that may affect the installation of this underlayment. Since MAT-40 is a self-adhered waterproofing membrane, no additional membrane is required for perimeter ice dam protection, unless otherwise specified.

APPLICATION - METAL ROOFS

In assemblies where metal roofing is installed directly over insulation, an underlayment should be installed on top of the insulation or cover panel to catch any condensation or ice melt.

Ventilation under metal decks should be considered based on climactic conditions due to project location and the design requirements of the building. In all assemblies, the specifica-

tions and requirements of the metal roofing panel manufacturer should be followed.

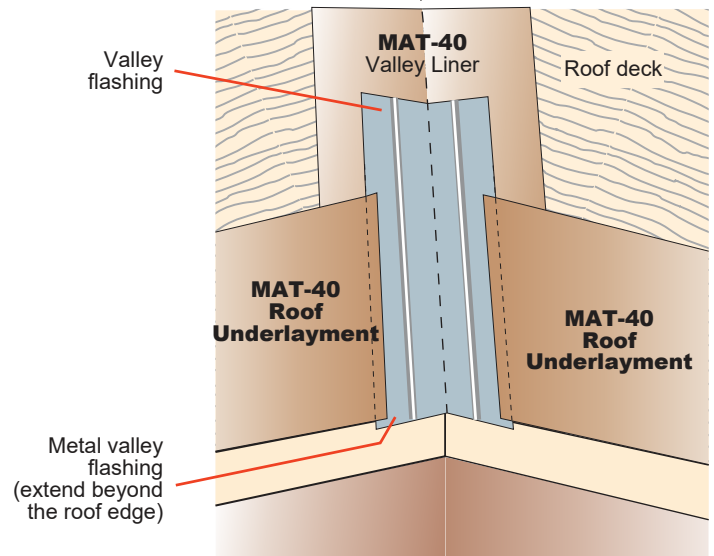
When using MAT-40 under metal roofs, BITEC agrees with the NRCA recommendation of a minimum 1/2" per foot slope, or as specified by the metal roof system manufacturer. For metal roof installations, additional slip sheets may be installed over MAT-40 when required by project specifications.

APPLICATION - TILE ROOFS

When using MAT-40 under tile roofs, BITEC agrees with the NRCA recommendation of a minimum 4" per foot slope. On slopes less than 4:12, a primary weatherproofing roof membrane should be installed before the tile is installed. Installers should familiarize themselves with the project requirements and refer to the standard guidelines set forth in manuals published by NRCA, FRSA, and the Roof Tile Institute in conjunction with Western States Roofing Contractors Association and other pertinent publications.

All tile and metal roof products should be installed in compliance with specific manufacturer's recommendations. Where there are differences in requirements, the more stringent usually applies. However, all parties to any installation should be in full agreement before an installation is begun. The included diagrams are only intended to indicate some of the basic uses for MAT-40 as an underlayment for metal and tile roofs. There are many special conditions that can be adapted from these basic details.

Fig. 2 - Typical Underlayment - Metal and Tile Roofs



As with any roofing project, good roofing practices should always be followed.

STORAGE & HANDLING

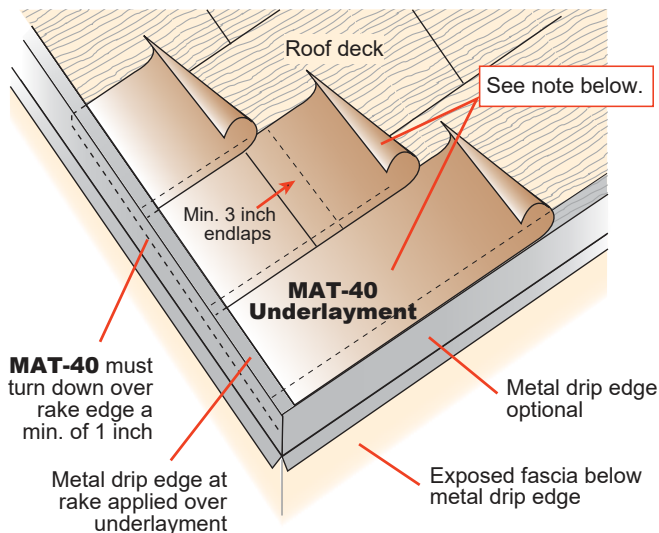
Store MAT-40 in its original container on pallets, inside or under cover, and protected from the elements. Avoid prolonged exposure above 90°F (32°C). Product may stick together if stored at elevated temperatures. Do not store product in moisture-prone areas. Keep MAT-40 rolls upright until immediately before use. Store any remaining membrane in the original container to protect it for future use.

PRECAUTIONS

Dispose of any unused MAT-40 in accordance with local codes (MAT-40 does not contain asbestos). MAT-40 should not be used in any interior space due to its asphaltic odor. MAT-40 can be slippery when wet or covered with frost and/or ice. Keep MAT-40 and all roofing components away from children and animals. Never use MAT-40 for any purpose other than its intended use. Misuse of or abuse to the product may result in property damage or other personal injury. BITEC assumes no responsibility for any loss arising from misuse and/or misapplication of its products.

Safety first! The roofing contractor and employees are the key to success regarding safety. Safety should always be first! Read all label information, SDS, and precautions before using. For safety information on our products, please visit www.bitec.com.

Fig. 1 - Typical Underlayment - Metal and Tile Roofs



MAT-40 must turn down over rake edge a min. of 1 inch

Metal drip edge at rake applied over underlayment

Note: Apply the first course of materials at the lowest point of the roof, working progressively up-slope to the ridge / high point.

Technical Schedule		ASTM D1970
3rd Party Independent: (NEMO ETC SGS SA Element Materials Technology)		
Roll Dimensions	3.28' (1 m) x 64.5' (19.7 m)	
Thickness (typical)	69 mils (1.75 mm)	
Polymer / Modifier	SBR	
Coverage (nominal)	200 ft ² (18.7 m ²)	
Weight per roll	80 lbs (36.4 kg)	
Weight per 100 ft ²	40 lbs (17.9 kg)	
Top Surface	Polyester fabric	
Bottom Surface	SBR polymer bitumen	
Minimum Installation Temperature	55°F (13°C)	

All information is given in good faith but normal tolerances of manufacture and testing will apply. BITEC reserves the right to improve and change its products at any time without prior notice or advice. The use of BITEC products is determined by local conditions and individual requirements of each contract. In consideration of the many factors involved, BITEC cannot be held responsible for the improper application of its products and for conditions beyond its control. All claims filed against BITEC warranties will be subject to the provisions set forth at the date of the warranty issuance, and any addendum thereto. Under no circumstances will BITEC be held liable for any damage, whether personal injury or property damage, which occur during or after the application of any BITEC products.

