

THERM Upgraded Hot Applied Built-Up Roofing System

Description:

The THERM Upgraded roofing system is a high performance hot built-up roofing system. It is designed to improve performance by providing enhanced resistance to rooftop exposure.

Basic Use:

The THERM Upgraded roofing system was developed for use as a high performance, new or replacement membrane, wherever a conventional or protected built-up roofing membrane is desired. This system has proven performance when conditions of light-weight building materials, thermal movement or vibration demand flexibility and fatigue resistance. Installation is carried out using conventional hot application techniques and equipment.

Applicable Standards:

Consult your Tremco representative regarding current UL Classifications, FM Approvals and details on applicable standards and fire ratings.

System Composition:

The THERM Upgraded roofing system utilizes THERMastic 80, a mopping grade, high quality rubberized asphalt for adhering and surfacing a built-up roofing membrane consisting of a composite base ply, (a polyester/glass/polyester trilaminate reinforced coated base) and two or more plies of fibreglass felts.

Good Roofing Practices:

- Do not install over wet insulation or substrates.
- Backnailing is required on roofs with slopes of 16.6% (2:12) or greater.
- Do not adhere membrane directly to polyisocyanurate insulation.

System Limitations:

- Maximum acceptable slope is 25% (3:12).
- Do not use with phenolic or polystyrene insulation.

Product Advantages	
Features	Benefits
Rubberized properties	• Accommodates live load stresses
Enhanced weathering properties	• Extends performance properties
Superior cold weather properties	• Wider application and performance window
Tar and asbestos-free	• Environmentally friendly.

Packaging:

THERMastic 80 is available in 24.9 kg (55 lb) cartons, 9 cartons per pallet.

Drainage:

Excessive ponding can adversely affect the performance of any built-up roofing system. Where positive drainage does not exist, water removal from the roof surface must be facilitated by lowering drains, installing tapered insulation, adding drains or other acceptable means.

Precautions:

User must read container labels and Material Safety Data Sheets for health and safety precautions prior to use.

Never mix THERMastic 80 with any standard roofing asphalt, as the physical properties of the THERMastic 80 will be significantly reduced and roof slippage may occur.

Vapour/Air Barrier:

Where specified, ensure proper design and installation. Contact your Tremco representative for detailed recommendations.

Structural Integrity of Decks:

The existing deck must be properly designed and constructed to support and secure the THERM Upgraded built-up roofing system.

Insulation:

The insulation must be dry at the time of the THERM Upgraded installation. No more insulation shall be installed than can be closed in that day. Insulation may be adhered with a hot melt adhesive or Tremco Fas-n-Free® Insulation Adhesive. Insulation may also be mechanically fastened depending upon substrate, exterior and interior environment and other requirements. Detailed recommendations are available from your Tremco representative.

General Installation Information:

See applicable instructions for detailed information on new roofing and reroofing for various deck types. Field application and flashing techniques are critical in securing a watertight roof. Application instructions must be followed exactly. There is no substitute for good workmanship by experienced, trained applicators.

Follow the specific, detailed instructions for the specific application.

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Do not substitute materials. If questions arise, contact your Tremco representative.

Note: Wood and Tectum decks require a rosin sheet below the base sheet.

THERM Upgraded Built-up Roof Membrane

Installation:

After composite ply, install layers of a fiberglass roofing ply in shingle fashion. Place in such a manner as to ensure that water will flow over or parallel to, but never against, exposed edges.

- 1) Heat THERMastic 80 in a clean asphalt kettle equipped with a circulating pump. Follow instructions on label.
- 2) Adhere composite ply in a solid mopping of THERMastic 80 at approximately 1.25 kg/sqm (25 lb/100 ft²). Apply THERMastic 80 no more than 3 m (10 ft) ahead of each roll being adhered.
- 3) Use 460 mm and 915 mm (18 in and 36 in) wide fiberglass plies to start and finish roof edges and terminations.
- 4) Overlap starter strips 510 mm (20 in) with next ply, then overlap each succeeding ply 485 mm (19 in).
- 5) Embed each ply in solid moppings of THERMastic 80 at approximately 1.25 kg/m² (25 lb/100 ft²)* per ply. Apply THERMastic 80 no more than 3 m (10 ft) ahead of each roll being embedded.
- 6) Do not walk on newly installed plies until the THERMastic 80 has cooled sufficiently to prevent its displacement by the traffic.
- 7) Extend plies only to top edge of cant strips along bases of parapets, walls and skylights.
- 8) Fit plies into roof drain rims and reinforce with flashing set in specified adhesive. Secure clamping collars and install drain screens.
- 9) Treat all perimeter edge details, expansion joints and flashings by reinforcing with approved Tremco flashing system.
- 10) Install metal details as specified.
- 11) When terminating each day's installations, install temporary water dams.
 - a) Use non-perforated, saturated organic felts adhered and overcoated with a solid coating of adhesive.
 - b) Remove water dams before resuming application.

Finishing Options:

- a) **Gravel:** Apply at 2.7 kg/m² (55 lb/100 ft²)* and immediately broadcast approximately 19.5 kg/m² (400 lb/100 ft²) of new, clean gravel onto the flood coat.
- b) **Reflective Smooth Surface:** Apply (reflective) surfacing emulsion (I.E. High Build Reflective Coating) at a rate of 1.6 L/m² (4 gal/100 ft²)* to a clean surface.

Physical Performance Characteristics

THERM Upgraded

Property	Typical Value	Test Method
THERMastic 80		
Softening Point (C)	>90	ASTM D 3461 (Mettler)
Elongation (%)	800%	ASTM D 412 (Die C)
Low Temperature Flexibility (C)	-8	ASTM D3111
Low Temperature	274	ASTM D 92-85
Composite Ply		
Tensile Strength	MD 24.5 kN/M XMD 23.6 kN/M	ASTM D 146
Resistance to Puncture	529N	ASTM E 154

Technical Services:

Your local Tremco representative and the Tremco Technical Services Department provide problem analysis and assistance in developing recommendations for special applications. On-site instruction can generally be provided at a nominal charge. Their services are complemented and augmented by Tremco's Research and Development Laboratory, which has earned a unique reputation in weather-proofing technology.

Statement of Policy and Responsibility:

Tremco takes responsibility for the furnishing of quality roofing materials and providing specifications and recommendations for their proper installation. Tremco does not, either itself or its representatives, practice architecture or structural engineering. Tremco offers no opinion on and expressly disclaims any responsibility for the structural soundness of any roof deck on which its products may be applied. The opinions of competent structural engineers should be obtained as to the structural soundness of the roof deck or its ability to properly support the contemplated roof installation. Tremco accepts no liability for any failure of the roof deck or resultant damages, and no Tremco representative is authorized to vary this disclaimer.

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