

THERMASTIC® 150

Multi-Layered Fabric Reinforced Hot SBS Rubberized Asphalt Membrane System

COMPOSITION:

One-part, hot-applied, SBS modified asphalt. 100% solids.

BASIC USE:

THERMASTIC 150 multi-layered system is suited for remedial and new applications of horizontal concrete construction for Vegetated and Inverted (IRMA) Roof Membrane Assemblies.

LIMITATIONS:

- Not designed for use as a finished traffic surface without a topping.
- Do not apply over any type of lightweight concrete without prior written approval from Tremco.
- Not for use with lightweight insulating concrete.
- Not for application to exterior concrete over unvented steel pan decks.
- Not for use on wet or frozen substrates.

GRADE:

Available in a single grade that can be used on both horizontal and vertical applications depending on temperature of material and substrate.

PACKAGING:

THERMASTIC 150 is packaged in 50 lb. (22.7 kg) boxes with a meltable polyethylene liner. Sold by the pallet; with 40 boxes/pallet totaling 2000 lbs. (908 kg).

COLOR:

Black

TECHNICAL DATA:

SHELF LIFE: Over 2 years in sealed containers properly stored.

SOLIDS CONTENT: 100%

COVERAGE: 1.0 lb. per sq. ft. to the specified surface which produces approximately 165 mils.

SERVICE TEMPERATURE: -15°F to 160°F
(-25°C to 71°C)

POT LIFE: 24 hours at 325° F (163°C). No change under mild agitation.

APPLICATION TEMPERATURE OF MATERIAL: 375°F to 400°F (191°C to 204°C).

SELF-HEALING PROPERTIES: Reseals under slight pressure at 77°F (25°C).

HEATING THERMASTIC 150:

The application of THERMASTIC 150 requires a double-jacketed oil bath kettle with mechanical agitation, specifically designed for applying hot rubberized asphalt materials. The kettle shall be capable of maintaining materials at 375°F to 400°F (191°C to 204°C) and oil bath temperatures of 500°F to 550°F (260°C to 287°C). Consult kettle manufacturer for specific information on the safe operation and maintenance.

REINFORCING FABRIC:

Tremco Reinforced Fabric 2014, 1 oz. per square yd., 36" width, 600' length.

DRAINS:

All level drains shall be installed wherever identified on the plans (see Details section) in accordance with the drain manufacturer's instructions. Following good drainage procedures, the structural slab shall be sloped a minimum of 1/8" (3mm) per foot.

INSTALLATION:

Concrete Condition:

A. The structural concrete shall have a smooth, light steel trowel finish followed by a fine hair-broom or equivalent finish.

B. The structural concrete should have minimum of 4,000 psi compressive strength at 28 days. The structural concrete deck must be pitched to drains a minimum of 1/8" per foot.

C. The structural concrete surface should be free of excessive roughness, voids, protrusions, float-marks or exposed aggregate; such conditions require more material to achieve an acceptable membrane installation. For remedial work, any existing membrane residuals shall be rendered to the satisfaction of Tremco.

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D. The concrete should be cured by water or alternately by a dissipating resin curing compound. Curing compounds that are used shall be approved by Tremco.

Surface Cleaning:

A. The structural concrete must be clean, dry, sound and be free of laitance, loose mortar, oil, unapproved curing compounds and other contaminants which interfere with proper membrane adhesion.

B. All exposed metal surfaces to receive THERMASTIC 150 shall be mechanically cleaned to bright metal and be free of loose or unbonded paint and oils. The prepared surface should then be wiped with Xylol and primed with Tremprime QD or Tremprime WB. (see Detail A).

C. All exposed metal surfaces can be alternately prepared with TremLAR LRM Vertical Grade. Metal surfaces to receive TremLAR LRM Vertical preparatory work shall be mechanically cleaned to bright metal and wiped with Xylol. The metal surface will be primed with Tremco Primer No. 6 followed by a 60 mil coating of TremLAR LRM Vertical. Allow a minimum of 16 hours to cure at 70°F and 50% Relative Humidity; longer times are required at lower temperatures and humidities. Refer to TremLAR LRM Specification Data Sheet for complete instructions.

Preparatory Details:

A. Prime exposed metal projections as described in Surface Cleaning section. Apply a 1" cant of either THERMASTIC 150 or TremLAR LRM Vertical Grade to the primed metal projections. THERMASTIC 150 may be used by building a double layer of THERMASTIC 150 and reinforcing fabric. (See Detail A).

B. At changes in plane such as at parapet walls, concrete columns, etc., prime vertical surface with Tremprime QD or Tremprime WB. Install a flashing of Tremco TRA Elastomeric Sheeting and THERMASTIC 150. (See Detail B)

C. Prime all shrinkage cracks (less than 1/16 of an inch) with Tremprime QD or Tremprime WB 5 inches to either side of the crack. Allow Tremprime QD or Tremprime WB to dry tack free and apply a 40 mil minimum thickness of THERMASTIC 150 three (3) inches to either side of the crack and immediately embed the reinforcing fabric. Cover the entire detail with 1/8 of an inch (125 mils) thickness of THERMASTIC 150. (See Detail B)

D. Prime all moving structural cracks (greater than 1/16 of an inch) with Tremprime QD or Tremprime WB a minimum of 5 inches to either side of the crack. Allow the primer to dry tack free, apply THERMASTIC 150 in 1/8" (125 mils) thickness and embed a minimum of 6 inch wide

TRA Elastomeric Sheeting into THERMASTIC 150. Cover entire area with 1/8" coat of THERMASTIC 150. (See Detail B)

E. At construction joints and cold joints, remove premolded joint filler to a depth of 1/2" (13mm) minimum. Install a 1" (or as specified) open cell polyurethane foam rod into the joint. Allow it to protrude to the specified height. Prime the joint with Tremprime QD or Tremprime WB 8 inches to either side of the joint. When dry and tack free apply THERMASTIC 150 in 1/8" (125 mils) thickness and embed a minimum 12 inch wide Tremco TRA Elastomeric Sheeting into THERMASTIC 150. Cover entire treatment with 1/8" coat of THERMASTIC 150. (See Detail C)

F. Expansion joints shall be treated with TRA Elastomeric Sheeting and THERMASTIC 150. Apply Tremprime QD or Tremprime WB a minimum of 8 inches to either side of the joint. Allow primer to dry tack free. Size the TRA Elastomeric Sheeting equal to the total anticipated design movement plus enough sheeting to cover a minimum of 6 inches on each side of the joint. Loop the TRA Elastomeric Sheeting down into the joint a depth equal to the total anticipated design movement and bond each side with 1/8" (125 mils) of THERMASTIC 150. Fill loop flush. Treat expansion joints as specified by drawings and in strict accordance with Tremco written instructions. (See Detail D). If required, TRA Elastomeric Sheeting may be looped upward, to a height equal to the total anticipated movement, support assembly with an open cell polyurethane backer rod. (See Detail E) Bond and overcoat entire assembly with 1/8" (125 mils) of THERMASTIC 150.

THERMASTIC 150:

A. Preparatory work using TremLAR LRM Vertical must be fully cured prior to beginning THERMASTIC 150 installation.

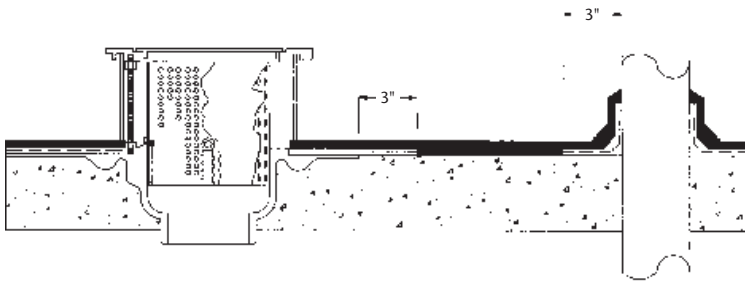
B. Apply Tremprime QD or Tremprime WB to the concrete surface to be waterproofed. Coverage rate will vary 250-300 sq. ft. per gallon for specified concrete finish. Coverage rates will vary due to finish and porosity of the concrete. Refer to Tremprime QD or Tremprime WB data sheet for additional information. Allow Tremprime QD or Tremprime WB to dry tack free before applying membrane. About four hours are required at 70°F; longer times are required at lower temperatures. Always apply primer evenly without puddling. Primer must be dry and tack free prior to full membrane installation. Do not apply primer to TremLAR LRM detail work. In remedial applications do not prime any existing membrane residuals.


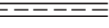
C. Apply THERMASTIC 150 to the surface at uniform rate sufficient to fully adhere reinforcing fabric a minimum application thickness of 40 mils. Coverage will vary with surface conditions.

TYPICAL PERFORMANCE CHARACTERISTICS			
Cured Film Properties	Test Method	Requirement	Typical Result
Flash Point	ASTM D92, COC	Greater than 510°F	565°F
Viscosity	CGSB 37GP-50	2-15 Seconds	7
Water Vapor Permeability	ASTM E96, Procedure E	Less than 0.01 perms-inch (0.017 metric per-cm)	0.009 perm-inch (0.015 metric perm-cm)
Water Absorption	CGSB 37GP-50	72 hrs: less than 0.11%	0.08%
Penetration by Standard Cone	ASTM D1191	At 77°: less than 100 (1/10mm) At 120°F: less than 200 (1/5mm)	55 104
Flow	ASTM D1191	At 140°F: 3.0mm max.	1.0mm
Low Temp. Flexibility	CGSB 37GP-50	No adhesive failure nor cracking at -15°F (-25°)	Pass
Heat Stability	CGSB 37GP-50	No change in viscosity penetration flow, or low temperature flexibility	Pass
Low Temperature Crack Bridging	CGSB 37GP-50	No adhesive failure or splitting @ -15°F (-25°)	Pass
Elongation	ASTM D412		1450% @ 77°F (25°C)
Recovery from 300% strain	ASTM D412		90% @ 77°F (25°C)
Softening Point	ASTM D36		180°F (85°C)
Elasticity - Rate of Toughness to Peak Load	CGSB 37GP-50	5.5 J	18.0 J

DETAIL - A

PREPARATORY WORK OF DRAINS AND PROJECTIONS



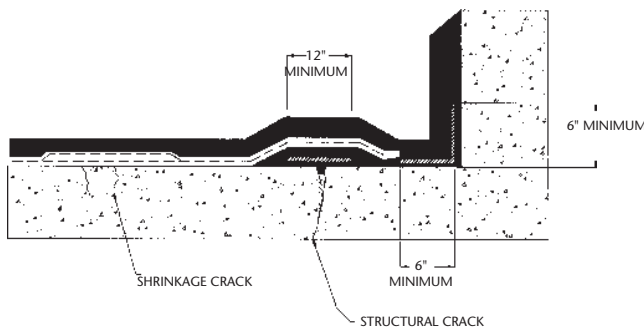
KEY:  125 MILS OF THERMASTIC 150
 40 MILS OF THERMASTIC 150 AND FABRIC


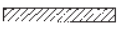

NOTES:

1. Clean to bright metal. Prime with Tremprime QD or Tremprime WB
2. Allow primer to fully dry.
3. Apply 40 mils of THERMASTIC 150 and reinforcing fabric extending 3 inches beyond the drain or projection being treated.
4. Apply full 125 mil coat of THERMASTIC 150 to all detail work.

DETAIL - B

PREPARATORY WORK OF CRACKS AND FLASHING



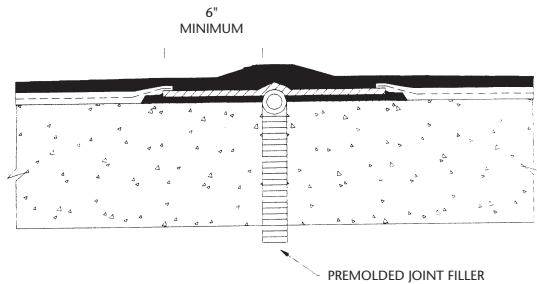
KEY:  125 MILS OF THERMASTIC 150
 TRA Elastomeric Sheeting
 40 MILS OF THERMASTIC 150 AND FABRIC



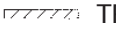
NOTES:

1. Pretreat shrinkage cracks with 40 mils of THERMASTIC 150 and reinforcing fabric.
2. Pretreat structural cracks with 1/8 inch (125 mils) of THERMASTIC 150 and TRA Elastomeric Sheeting.
3. Pretreat flashing with 1/8 inch (125 mils) of THERMASTIC 150 and TRA Elastomeric Sheeting. Install a minimum of 1/8 inch (125 mils) of THERMASTIC 150 to encapsulate the TRA Elastomeric Sheeting.

DETAIL - C

TREATMENT OF CONSTRUCTION AND COLD JOINT



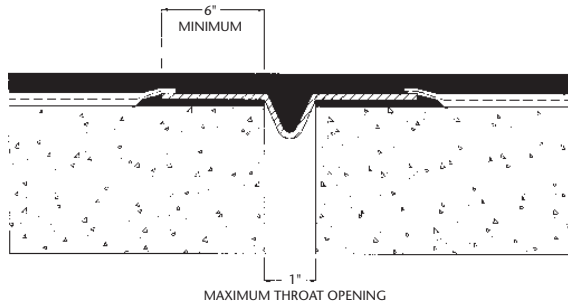
KEY:  125 MILS OF THERMASTIC 150
 40 MILS OF THERMASTIC 150 AND FABRIC
 TRA Elastomeric Sheeting




NOTES:

1. Remove any premolded joint filler to a depth of 1/2 inch minimum.
2. Install a 1 inch (or as specified) open cell polyurethane foam rod into the joint.
3. Allow rod to protrude to the specified height.
4. Prime the joint with Tremprime QD or Tremprime WB 5 inches to either side of the joint. Allow primer to dry tack free.
5. Cover entire treatment with 125 mil coat of THERMASTIC 150

DETAIL - D

TREATMENT OF EXPANSION JOINT



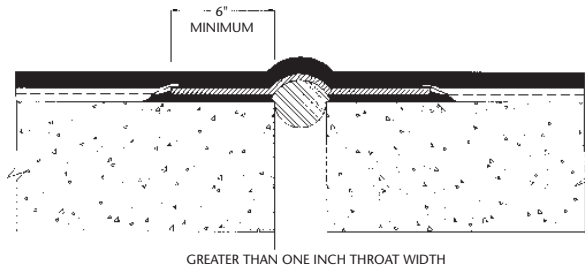
- KEY:**
-  125 MILS OF THERMASTIC 150
 -  40 MILS OF THERMASTIC 150 AND FABRIC
 -  TRA Elastomeric Sheeting




NOTES:

1. Adhere TRA Elastomeric Sheeting with 1/8 inch (125 mils) of THERMASTIC 150.
2. Loop sheet to a depth equal to the total anticipated movement.
3. Fill loop flush with THERMASTIC 150.

DETAIL - E

EXPANSION JOINT TREATMENT



- KEY:**
-  125 MILS OF THERMASTIC 150
 -  40 MILS OF THERMASTIC 150 AND FABRIC
 -  TRA Elastomeric Sheeting

NOTES:

1. Adhere TRA Elastomeric Sheeting with 1/8 inch (125 mils) of THERMASTIC 150.
2. Loop TRA Elastomeric Sheeting upward, to a height equal to the total anticipated movement.
3. Support assembly with an open cell polyurethane backer rod.
4. Overcoat entire assembly with 1/8 inch (125 mils) coat of hot THERMASTIC 150.

Embed the reinforcing fabric into the membrane immediately. Allow 6" over laps in reinforcing fabric. All over lapping reinforcing fabric must be embedded in hot Thermastic 150.

Apply a second coat of THERMASTIC 150 at 1/8" thickness (125 mils). All installed reinforcing fabric must be covered as soon as possible. No installed reinforcing fabric will be left exposed overnight. Control coverage rates by measuring square footage of the area to be covered. Apply THERMASTIC 150 at the specified coverage rates. Rough concrete will use more material. Verify mil thickness by cutting out test sections to verify mil thickness.

D. Prior to water test, allow membrane to cure for a minimum of 24 hours.

E. Prior to placement of protection board, flood test area with a minimum of 1 inch for 24 hours. Repair membrane as required with an application of THERMASTIC 150 and reinforcing fabric.

F. Upon successful completion of the water test, install approved protection board. For horizontal applications install a 1/8 inch asphalt impregnated fiberboard for standard duty applications. TREMboard is approved for use in vertical application. The horizontal protection board shall be approved by Tremco prior to use.

REPAIRS:

If punctured, THERMASTIC 150 can be repaired by another application of the same product. Remove dust or dirt with Mineral Spirits; wipe prior to treatment.

PRECAUTIONS:

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

AVAILABILITY AND COST: Contact your local Tremco Roofing Representative for pricing and availability. For the name and number of your Representative, call the Roofing Division at 216/292-5000.

MAINTENANCE: Your local Tremco Roofing Representative can provide you with effective maintenance procedures which may vary, depending upon specific conditions. Periodic inspections, early repairs and preventive maintenance are all part of a sound roof program.

GUARANTEE/WARRANTY: Tremco Inc. warrants Thermastic 150 to be free of defects and to meet published physical properties when tested according to ASTM and Tremco standards. Under this warranty, we will provide at no charge, THERMASTIC 150 in standard packaging to replace any THERMASTIC 150 proven to be defec-

tive when applied in according to our written instructions, and in applications recommended by us as suitable for THERMASTIC 150. THIS IS BUYER'S SOLE AND EXCLUSIVE REMEDY.

All claims concerning product defects must be made in writing within twelve (12) months of shipment. The absence of such claims in writing during this period will constitute a waiver of all claims with respect to such product.

This warranty shall be IN LIEU OF any other warranty, express or implied, including but not limited to, any implied warranty of MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

TECHNICAL SERVICES: Your local Tremco Representative, working with the Technical Service Staff, can help analyze conditions and needs to develop recommendations for special applications. The services of the Tremco Research Center, which has earned a unique reputation in weatherproofing technology, complement and extend the services of the Tremco Technical Service staff.

STATEMENT OF POLICY AND RESPONSIBILITY:

Tremco takes responsibility for furnishing quality materials and for providing specifications and recommendations for their proper installation.

As neither Tremco itself nor its Representatives practice architecture or engineering, Tremco offers no opinion on, and expressly disclaims any responsibility for the soundness of any structure on which its products may be applied. If questions arise as to the soundness of a structure or its ability to support a planned installation properly, the Owner should obtain the opinion of competent structural engineers before proceeding. Tremco accepts no liability for any structural failure or for resultant damages, and no Tremco Representative is authorized to vary this disclaimer.



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