SUBMITTAL COVER SHEET

From: Gustavo Carvajal **Attn:** Tim Brown

Company: Piazza, Inc.

Phone/Fax #: (914)741-4435

Project: Dutchess Stadium

Project #: RFB-DCB-18-22

C&S Companies
499 Col. Eileen Collins Blvd.
Syracuse, NY 13212
(315) 455-2000; Fax: 455-9577

Reference: CSI Code: 071413 Dwg No: _____

Paragraph: _____ Other: _____

Description: Hot Fluid Applied Rubber Asphalt Waterproofing Product data

Supplier: DME

Manufacturer: _____

Item Type:
X Product Data ____ Manf. Cert/Warranty
____ Shop Drawings ____ Samples
____ Other: _____

Contractor's Approval:

____ Reviewed for general compliance of specifications.

____ This submittal is a ***substitute*** to the specified product.

____ For Architects / Engineers Approval

This is our ____ submittal for this item.

We are submitting ____ copies.

Contractor Submittal Review Stamp

THE ATTACHED MATERIAL HAS BEEN REVIEWED BY THE UNDERSIGNED AND IS BELIEVED TO COMPLY WITH ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE UNDERSIGNED UNDERSTANDS VERIFICATION OF FIELD DIMENSIONS, AND COORDINATION WITH OTHER TRADES, REMAINS THE RESPONSIBILITY OF THE CONTRACTOR.

Submitted by: Piazza, Inc. Digitally signed by Piazza, Inc. DN: C=US, E=julianna@piazzabrothers.com, OU=Piazza, Inc.", O="Piazza, Inc.", CN="Piazza, Inc." Date: 2023.03.15 15:04:38-04'00'

Date: 06/26/2023

DLR Group

__ REVIEWED
__ REVIEWED – ADDITIONAL INFORMATION REQUIRED
X FURNISH AS CORRECTED
__ REVISE AND RESUBMIT
__ REJECTED
__ NOT REVIEWED

This review is for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. Review of submittals is not for the purpose of determining the accuracy and completeness of other information such as dimensions, quantities, and installation or performance of equipment or systems, which are the Contractor's responsibility. The Architect's review shall not constitute approval of safety precautions or construction means, methods, techniques, sequences or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component. The Architect's comments, notes or corrections are not an authorization to proceed with Work involving a change in the Contract Sum, the Contract Time or both. If any portion of this review requires a change to the Work, an appropriate change instrument must be executed in accordance with the Contract Documents.

DLR Group

Date: 06/29/2023
By: ASchmidt

INCLUDE DYMONIC 100 AND ALL OTHER REQUIRED SYSTEM COMPONENTS FOR A COMPLETE SYSTEM PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

***Note: Provide one cover sheet for each copy of the submittal.**

TREMproof 6100POWERply Standard SmoothTREMDrain 1000NWElastomeric SheetingReinforcing FabricsTREMprime QD Low-Odor PrimerTREMprime WB Primer

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TREMCO

TECHNICAL DATA SHEET

TREMproof® 6100

Multi-Layered, Fabric-Reinforced, Hot-Applied, Rubberized Asphalt Waterproofing Membrane

PRODUCT DESCRIPTION

One-part, 100% solids, hot-applied, rubberized asphalt waterproofing membrane. TREMproof 6100 can be formulated with up to 25% recycled content. Contact your local Tremco Sales Representative for additional information.

BASIC USES

TREMproof 6100 is ideally suited for new and remedial waterproofing applications. The TREMproof 6100 system is applied to horizontal concrete surfaces and can be applied to the top level of structures, such as roof decks and unexposed top-level parking areas. TREMproof 6100 can also be used in the following applications: planters, pavers, plaza decks, vegetated roofing systems, and submerged conditions.

EQUPMENT: Heating of TREMproof 6100 is accomplished utilizing a double-jacketed, oil-bath melter with mechanical agitation, specifically designed for non-direct fired hot rubberized asphalt waterproofing membranes. An air jacketed melter is also acceptable. Melter must be capable of maintaining material temperature at 375 to 425 °F (191 to 218 °C), and an oil-bath temperature of 500 to 550 °F (260 to 288 °C) intermittently. Direct fired melters are not recommended.

AVAILABILITY

Immediately available from your local Tremco Sales Representative or Distributor. For Distributor locations, visit www.tremcosealants.com.

COVERAGE RATES

90 mils = 0.621 lb/ft² (3.03 kg/M²)
125 mils = 0.8625 lb/ft² (4.21 kg/M²)
200 mils = 1.38 lb/ft ² (6.74 kg/M²)
215 mils = 1.48 lb/ft² (7.23 kg/M²)

PACKAGING

50-lb (22.7-kg) boxes, 40 boxes/pallet totaling 2000 lbs (908 kg)
Sold in pallet quantities only.

COLORS

Black

APPLICABLE STANDARDS

TREMproof 6100 meets or exceeds the following specifications and approvals:

- CGSB 37.50-M89
- Miami-Dade County Approved - NOA#09-1110.05
- Los Angeles Approved - RR#25299
- New York City Approved - MEA#62-95-5

FIRE RATED SYSTEMS

- UL Class A - R-10845
- ISO 9001: 2000 Certified
- BBA Agreement Certification

LIMITATIONS

- Do not apply over any type of lightweight concrete without prior written approval from Tremco.
- Not for use on wet or frozen substrates.

- Not suitable for direct contact with coal tar derivative materials. If this condition exists on a jobsite, contact Tremco Technical Service for additional instructions.
- Concrete must be allowed to cure for a minimum of 28 days prior to application.

WARRANTY

A repair or replacement warranty is available on all Tremco products. Visit https://www.tremcosealants.com/warranties/ for details.

TYPICAL PHYSICAL PROPERTIES		
PROPERTY	DESCRIPTION	
Type	Hot-applied rubberized asphalt	
Color	Black	
Solids	100%	
Density	1.29	
Application	Flat Squeegee	
Cure Time	24 hr	
Thickness	Minimum 215 mils (wet), 215 mils (dry)	
PROPERTY	TEST METHOD	TYPICAL VALUES
Maximum VOC	Method 310	0 g/L
Flash Point	ASTM D92 Minimum 500 °F (260 °C)	604 °F (318 °C)
Cone Penetration At 77 °F (25 °C), 0.43" (11.0 mm) maximum At 122 °F (50 °C), 0.78" (20.0 mm) maximum	ASTM D5329 at 77 °F (25 °C) At 122 °F (50 °C)	0.22" (5.7 mm); 0.71" (18.1 mm)
Water Vapor Permeance Ng/Pa*s*M² Maximum	ASTM C836, ASTM E96, Dry Cup	0.3 ng/Pa*s*M²
Toughness At 77 °F (25 °C), 5.5 J minimum	CAN/CCSB 37.50-M89; Section 4.4	14.9 J
Ratio of Toughness to Peak Load At 77 °F (25 °C), 0.04 minimum	CAN/CCSB 37.50-M89; Section 4.5	0.04
Adhesion Rating	CAN/CCSB 37.50-M89; Section 4.6	Pass
Water Absorption 0.012 oz (0.35 g) maximum	CAN/CCSB 37.50-M89: Section 4.8	0.007 oz (0.20 g)
Pinholing 1 Pinhole maximum	CAN/CCSB 37.50-M89: Section 4.9	0
Low Temperature Flexibility	CAN/CCSB 37.50-M89; Section 4-10	Pass
Low Temperature Crack Bridging	CAN/CCSB 37.50-M89: Section 4.11	Pass
Flow	ASTM D5329	0
Heat Velocity	CAN/CCSB 37.50-M89	11 sec

Please refer to our website at www.tremcosealants.com for the most up-to-date Product Data Sheets.

NOTE: All Tremco Safety Data Sheets (SDS) are in alignment with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) requirements.

TP6100DS/1022

TREMCO

APPLICATION INSTRUCTIONS

TREMproof® 6100

Multi-Layered, Fabric-Reinforced, Hot-Applied, Rubberized Asphalt Waterproofing Membrane

1. PURPOSE

1.1 The purpose of this document is to establish uniform procedures for applying TREMproof® 6100.

1.2 The techniques involved may require modifications to adjust to jobsite conditions. Tremco recognizes that site-specific conditions, weather patterns, contractor preferences, and membrane detailing, may require deviation or alteration from these prescribed installation procedures. When such circumstances exist on a project, Tremco recommends that the local Tremco Sales Representative or Technical Services be contacted for assistance and approval as required.

2. SCOPE

2.1 This document will provide the necessary instructions for the application of TREMproof 6100 to qualify for the manufacturer's warranty. Tremco recognizes that site-specific conditions, weather patterns, contractor preferences and membrane detailing may require deviation or alteration from these prescribed installation procedures. When such circumstances and situations exist on a project, Tremco recommends that the local Tremco Sales Representative or Technical Services be contacted for assistance and approval as required.

3. POSSIBLE SYSTEM COMPONENTS

3.1 Dymonic® 100
3.2 Dymeric® 240 FC
3.3 Paraterm® Bar
3.4 POWERply®
3.5 Tremco DualFlex®
3.6 Tremco Elastomeric Sheeting
3.7 Tremco 2450 Protection Board
3.8 Tremco 2550 Protection Board
3.9 Tremco 2560 Protection Board
3.10 Tremco Protection Mat
3.11TREMDrain® Series Drainage Mats and Protection Boards
3.12TREMprime® QD Low-Odor Primer
3.13 TREMprime® WB Primer
3.14 Tremco Reinforcing Fabric
3.15 Tremco PUMA Flashing
3.16 Approved Willseal® Expansion Joints

4. SUBSTRATE PREPARATION

4.1 Concrete shall be water-cured and in place for at least 28 days after form removal. The moisture content shall not exceed 5.2% measured using a Tramex CME-4 meter or 85% RH as measured in-situ in accordance with ASTM F2170.

4.2 Concrete surface shall be a wood float or light broom finish achieving a CSP 3-4. Concrete surfaces should be free of voids, exposed aggregate areas, honeycombs, splatters, ridges, fins, and other projections or depressions which preclude a smooth and level surface. All reinforcing, including cut-off rebar, shall be covered by a minimum of 3/4" (18 mm) of concrete or approved epoxy or repair mortar.

4.3 Surface to receive membrane shall be sound, dry, clean and free of all dirt, dust, oil, grease, wax, tar, asphalt, mildew, mold, paint, sealers, coatings, curing agents, loose particles, laitance and other contamination or foreign matter which may interfere with the adhesion of the membrane. For appropriate surface moisture content, refer to section 4.1. Concrete that is to receive waterproofing shall be water-cured. Contact your local Tremco Sales Representative should a curing compound be required. Concrete surface-applied, membrane-forming curing compounds should not be used and may need to be removed prior to application.

4.4 All cast-in-place concrete, masonry, and concrete masonry unit (CMU) walls must have all joints solid grouted and struck flush with no voids. CMU grout lines should be struck flush and blocks should be filled prior to application of TREMproof 6100.

4.5 Plywood that is to receive waterproofing shall be exterior grade plywood, 5/8" (16 mm) thick minimum, with "A" side up, fastened with ring-shank nails. OSB and particle board are not acceptable as substrates.

4.6 Metal flashing that is to receive waterproofing shall be set in a continuous bedding bead of Tremco approved sealant. Install sealant S-bead between metal laps and mechanically fasten to substrate along leading edges every 4” (10 cm) O.C., staggered linearly to lie flat without fishmouths.

4.7 For horizontal applications, follow good drainage practice to permit unimpeded water flow to drain(s) that are a type and number sufficient to allow water to thoroughly evacuate the membrane surface.

4.8 All penetrations shall be encased in concrete. Penetrations must be solid grouted in place. No flexible pipe or corrugated pipe of any type shall be used for a through slab penetration. Penetrations shall be spaced a minimum of 2” (5 cm) apart to allow for detail work around penetration. All copper piping shall be sleeved with sleeve extending through slab. The waterproofing of the inside of the sleeve is the responsibility of other parties.

4.9 Sidewalls of expansion joints shall be parallel, smooth and straight. Block out, if required, shall be per the recommendations of the manufacturer. Expansion joints running through planters, walls, water features, or at building to deck shall have a curb to curb construction approved by Tremco, waterproofing contractor and architect/engineer.

5. EQUIPMENT

5.1 Heating of TREMproof 6100 is accomplished utilizing a double-jacketed, oil-bath melter with mechanical agitation, specifically designed for applying non-direct fired, hot rubberized, asphalt waterproofing membranes. An air-jacketed melter is also acceptable. Melter must be capable of maintaining material temperature at 375 to 425 °F (191 to 218 °C), and an oil-bath temperature of 500 to 550 °F (260 to 288 °C). Direct fired melter are not approved.

5.2 Proin pharetra nonummy pede. Mauris et orci:

- Donec laoreet nonummy augue.
- Donec laoreet nonummy augue.

6. HEATING TREMPROOF 6100

6.1 Begin melter warm-up at least 2 to 3 hr prior to material installation. Melter must be free of all foreign material.

6.2 TREMproof 6100 is packaged in a polyethylene bag that is inserted in a cardboard box or paddled into a 55-gal drum. Remove the cardboard to place the TREMproof 6100, still lined with the polyethylene bag, into the heated melter.

6.3 Add TREMproof 6100 to maintain the melter at ¾ capacity at all times.

6.4 Maintain Material temperatures at 375 to 425 °F (191 to 218 °C) with constant agitation. Overheating will cause TREMproof 6100 to bind, then coagulate to the walls of the melter, adversely affecting the material performance properties.

7. DETAIL WORK

Note: Do not apply membranes to a frosty, damp or wet surface. For more information, please consult appropriate Detail Drawings for Hot Applied Membranes published on our website www.tremcosealants.com.
If using TREMproof PUMA Flashing system for detailing, please refer to the system specific application instructions on our website.

7.1 SHRINKAGE CRACKS. Any non-moving cracks 1/16” (1.6 mm) or less shall be primed with Tremco approved primer 8 to 12" (20 to 30 cm) on both sides of the crack. When primer is dry, apply 90 mils of TREMproof 6100, 6" (15 cm) on both sides of the crack and immediately embed the reinforcing fabric. Cover the entire detail with the fully reinforced TREMproof 6100 system.

7.2 LARGE CRACKS AND COLD/CONSTRUCTION JOINTS UP TO 1/4" (6 mm). All cracks 1/16" to 1/4" (1.6 to 6 mm) shall be primed with Tremco approved primer 8" (20 cm) on both sides of the crack. When primer is dry, apply a minimum 90 mils of TREMproof 6100 extending 6" (15 cm) on either side of the crack and embed a minimum 12" (30 cm) wide strip of Tremco Elastomeric Sheeting or Tremco DualFlex into the hot material. The sheet must be free of fishmouths. Lap separate lengths of Elastomeric Sheeting or Tremco DualFlex a minimum of 12" (30 cm) and adhere with 125 mils of TREMproof 6100. Cover the entire detail with the fully reinforced TREMproof 6100 system. If the crack or joint width exceeds 1/4" (6 mm), contact Tremco for recommendations.

7.3 EXPANSION JOINTS UP TO 2-1/2 "(6 cm). There are three ways to treat floor to floor expansion joints.

a. Apply Tremco approved primer 8" (20 cm) on both sides of the joint and allow to dry. Install backer rod into the joint. Size Tremco Elastomeric Sheeting or Tremco DualFlex equal to the total anticipated design movement plus enough sheeting to cover a minimum 6" (15 cm) on each side of the joint. If necessary, lap separate lengths of Tremco Elastomeric Sheeting or Tremco DualFlex a minimum 12" (30 cm) and adhere with 125 mils of TREMproof 6100. As an option, terminate both sides of Tremco DualFlex or Tremco Elastomeric Sheeting with Paraterm Bar, fastened every 8" (20 cm) O.C. TREMproof 6100 should then be applied at a minimum of 12" (30 cm) to both sides of the joint at a 125-mil thickness. Cover the entire detail area with fully reinforced TREMproof 6100 system.

b. Apply Tremco approved primer 8" (20 cm) on both sides of joint. When primer is dry, install a 90-mil detail coat 6" on either side of the joint. Embed Elastomeric Sheeting or Tremco DualFlex into TREMproof 6100 on one side of the joint. Loop the sheet down into the joint a depth equal to, or greater than, the anticipated movement; then embed the other half of the sheet likewise on the other side of the joint. Coat the entire assembly with 125 mils of

TREMproof 6100 and fill the loop flush with the deck. Cover the entire detail area with fully reinforced TREMproof 6100 system.

c. Install backer rod in joint, followed by Dymeric 240FC, flush with the top surface of the deck. When sealant is cured, apply Tremco approved primer 8" (20 cm) on both sides of the joint and allow to dry. Apply a 90-mil thickness of TREMproof 6100 extending 6" (15 cm) on either side of the joint. Embed Tremco Elastomeric Sheeting or Tremco DualFlex into the detail coat, extending 6" (15 cm) on either side of the joint. If necessary, lap separate lengths of Tremco Elastomeric Sheeting or Tremco DualFlex a minimum of 12" (30 cm) and adhere with 125 mils of TREMproof 6100. Cover the entire area with fully reinforced TREMproof 6100 system.

d. Willseal Expansion Joints — see Willseal Expansion Joint Application Instructions. Contact your Willseal or Tremco Technical Service Representative

7.4 PROJECTIONS/PROTRUSIONS. Any and all exposed metal or hard PVC surfaces (pipes, sleeves, drains, vents, etc.) shall be cleaned. Remove oil, paints, rust, scales or any other foreign matter with wire brush or mechanical etching. With a clean cloth saturated with Tremco approved primer, wipe metal or PVC surface and 2" (5 cm) beyond penetrant then allow to dry. Install a 1" x 1" (2.5 x 2.5 cm) cant of TREMproof 6100 by building a double layer with reinforcing fabric. Allow the TREMproof 6100 to cool, so the material can be tooled into place with a trowel. Install fully reinforced TREMproof 6100 system to allowable specified height above expected waterline. Keep membrane below UV-exposed grade levels. Pipes may require stainless steel clamping rings.

7.5 DRAINS. Apply Tremco approved primer extending 8" (20 cm) beyond edge of drain. Install a 90-mil detail coat of TREMproof 6100 extending 6" (15 cm) beyond drain. Embed Tremco Elastomeric Sheeting into detail coat, extending 2" (5 cm) into drain and 6" (15 cm) beyond. Cover detail with fully reinforced TREMproof 6100 system. Membrane clamping ring is required for bi-level drains in split slab conditions.

7.6 CHANGE OF PLANES. Install TREMproof 6100 and Tremco Elastomeric Sheeting, Tremco DualFlex, or Tremco Reinforcing Fabric wherever a vertical surface or protrusion exists (parapet walls or other projections which penetrate up from the slab). Apply primer a minimum of 10" (25 cm) onto the horizontal surface and to the specified vertical height. Counter flashing should be installed such that the membrane will not be left exposed. When primer is dry, apply TREMproof 6100 at 90 mils thick and 8" (20.32 cm) onto horizontal surface and height specified vertical surface. Immediately embed Tremco Elastomeric Sheeting or Tremco DualFlex. The sheeting should extend a minimum of 3" (7.6 cm) onto the horizontal and as required vertical surface. Elastomeric Sheeting or Tremco DualFlex must be fully adhered and free of wrinkles and fishmouths. Lap separate lengths of Elastomeric sheeting or Tremco DualFlex a minimum of 12" (30 cm) and adhere with 125 mils TREMproof 6100. As an option, terminate Tremco Elastomeric Sheeting or Tremco DualFlex with Paraterm Bar, fastened every 8" (20 cm) O.C. Apply 125-mil thickness of TREMproof 6100 over the entire assembly.

8. PRIMER COVERAGE RATES

The following is a guide to determining material usage:

TREMprimg QD Low Odor. Coverage rate will vary from 20 to 400 ft^2/gal (4.9 to 9.8 M^2/L). The coverage rates will vary due to finish and porosity of the concrete.

TREMprime WB. Coverage rate will vary from 150 to 300 ft^2/gal (3.7 to 7.3 M^2/L). The coverage rates will vary due to finish and porosity of the concrete.

9. PROTECTION

9.1 Apply Tremco approved primer using a long-map, solvent-resistant roller, brush or airless apray to concrete surface to be waterproofed. Airless spray should be at least 11:1 ratio pump. Do not apply TREMprime QD Low Odor over any existing detail work.

9.2 Allow Tremco approved primer to dry before applying TREMproof 6100 membrane.

9.3 Apply the first coat of TREMproof 6100 at a minimum thickness of 90 to 125 mils to the specified substrate, including all previous detail coats. The most popular method of application is with a flat HRA squeegee. DO NOT USE NOTCHED SQUEEGEES.

9.4 Immediately install reinforcing fabric with a slight overlap of adjacent sheets into the first coat of TREMproof 6100 while in liquid state. This is done to prevent any gap between the fabric.

9.5 Apply second coat of TREMproof 6100 over the reinforcing fabric at a minimum of 90 to 125 mils. Total thickness will equal the documented specification. Nominal thickness will be 215 mils. Immediately install Tremco's specified protection system. Contact your local Tremco representative for guidance.

9.6 If a Flood Test is specified, it is preferred to perform the flood test on the membrane only. The membrane should be cured to a firm set rubber (24 hr minimum) before flooding. Flood with a minimum of 1" (2.5 cm) of water for 24 hr. Electronic Field Vector Mapping (ASTM D7877) is an acceptable alternative to a Flood Test.

9.7 A Tremco approved protection system and/or approved TREMDrain Drainage Mat shall be installed. This will provide protection prior to the installation of the wearing course.

9.8 The hot rubberized asphalt waterproofing system should connect with adjacent waterproofing systems and the air barrier system as applicable. When the same system or compatible materials are used, they may overlap. When connecting to the air barrier system, make sure the materials are compatible prior to installation. Contact your local Tremco Sales Representative or Technical Services.

10. TREMPROOF 610 PRODUCT YIELD

90 mils = 0.621 lb/ft² (3.03 kg/M²)
125 mils = 0.8625 lb/ft² (4.21 kg/M²)
200 mils = 1.38 lb/ft² (6.74 kg/M²)
215 mils = 1.48 lb/ft² (7.23 kg/M²)

Total system weight average = 1.40 lb/ft² (6.83 kg/M²) with fabric reinforcement.

Total system weight average including overlaps and minor imperfections = 1.50 lb/ft² (7.32 kg/M²).

11. MEMBRANE MAINTENANCE AND REPAIR

11.1 Depending on the type of installation on your facility, there may be a certain amount of maintenance, which you should perform to protect your waterproofing system. Contact your local Tremco Sales Representative for repair and restoration recommendations.

11.2 In the majority of waterproofing assemblies, the Tremco membrane and flashings shall remain completely covered and protected; however, there are a few items that should be addressed periodically.

11.3 The surface of the membrane should be covered and protected at all times. Inspections of the wearing surface applied over the membrane should be made several times each year. Pavers and or stone ballast systems should be left in place at all times so protection course over the membrane system remains completely covered. Exposed membrane and/or protection course may deteriorate due to UV exposure from the sun.

11.4 Examine drains several times each year. Make sure the plumbing and drain openings are not restricted by debris. For stone ballasted surfaces, keep larger stones around the drain bonnet.

11.5 Metal counterflashing's divert water over the membrane base flashings. They must be checked periodically and maintained to ensure that they remain in place and prevent water from by-passing the base flashing. Water that gets behind the base flashing may not only find entry into the building but may also seriously affect the performance of the flashing itself.

11.6 While most, if not all, of the membrane base flashings will be covered in a typical assembly, there may be instances where flashing is exposed. Any exposed flashing should be checked twice each year for any damage. Minor scrapes or punctures, including corrosion, should be addressed to prevent further damage.

11.7 If a new penetration must be made through the membrane or flashings, or if there is to be an addition to the existing building, contact Tremco Technical Services for prior approval of appropriate tie-in details. The tie-in must be done in accordance with all Tremco specifications to continue to meet the conditions of the warranty.

11.8 Contact your local Tremco Sales Representative or Tremco Technical Service prior to starting repair work to confirm compatibility.

11.9 Generally, architectural pavers will require no maintenance. The application of sealers or other surface treatments to protect the surface of pavers shall be made per the recommendations of the paving system manufacturer. Contact the paver supplier for specific Information on maintaining the pavers.

3735 Green Rd
Beachwood OH 44122
216.292.5000 / 800.321.7906

1451 Jacobson Ave
Ashland OH 44805
419.289.2050 / 800.321.6357

220 Wicksteed Ave
Toronto ON M4H1G7
416.421.3300 / 800.363.3213

1350 Gay-Lussac, Unit: 3
Boucherville QC J4B 7G4
514.521.9555

SAFETY DATA SHEET

1. Identification

Material name: TREMproof® 6100
Material: 872100R860

Recommended use and restriction on use

Recommended use: Adhesive
Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor Information
Tremco U.S Sealants
3735 Green Road
Beachwood OH 44122
US

Contact person:	EH&S Department
Telephone:	216-292-5000
Emergency telephone number:	1-800-424-9300 (US); 1-613-996-6666 (Canada)

2. Hazard(s) identification

Hazard Classification

Health Hazards

Carcinogenicity	Category 1A

Unknown toxicity - Health

Acute toxicity, oral	16.86 %
Acute toxicity, dermal	32.99 %
Acute toxicity, inhalation, vapor	100 %
Acute toxicity, inhalation, dust or mist	99.94 %

Label Elements

Hazard Symbol:

Signal Word: Danger

Hazard Statement: May cause cancer.

Precautionary

Statements

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.

Response: IF exposed or concerned: Get medical advice/attention.

Storage: Store locked up.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC): None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Asphalt	8052-42-4	40 - 70%
Calcium carbonate	471-34-1	15 - 40%
Magnesite	546-93-0	10 - 30%
Paraffinic Oil	64742-65-0	7 - 13%
Carbon Black	1333-86-4	1 - 5%
Paraffinic distillate	64742-04-7	1 - 5%
Amorphous silica	7631-86-9	0.1 - 1%
Zinc oxide	1314-13-2	0.1 - 1%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Ingestion: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

Inhalation: Move to fresh air.

Skin Contact: Wash skin thoroughly with soap and water. Get medical attention if symptoms occur.

Eye contact: Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If eye irritation persists: Get medical advice/attention.

Most important symptoms/effects, acute and delayed

Symptoms: May cause skin and eye irritation.

Indication of immediate medical attention and special treatment needed

Treatment: Symptoms may be delayed.

5. Fire-fighting measures

General Fire Hazards: No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: No data available.

Methods and material for containment and cleaning up: Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

Notification Procedures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

7. Handling and storage

Precautions for safe handling: Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level. Use mechanical ventilation in case of handling which causes formation of dust.

Conditions for safe storage, including any incompatibilities: Store locked up.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
Asphalt - Inhalable fume. - as benzene solubles	TWA	0.5 mg/m3	US. ACGIH Threshold Limit Values (03 2018)
Calcium carbonate - Total dust.	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Calcium carbonate - Respirable fraction.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Magnesite - Total dust.	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Magnesite - Respirable fraction.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Paraffinic Oil - Inhalable fraction.	TWA	5 mg/m3	US. ACGIH Threshold Limit Values (03 2014)
Paraffinic Oil	PEL	500 ppm 2,000 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Paraffinic Oil - Mist.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Carbon Black - Inhalable fraction.	TWA	3 mg/m3	US. ACGIH Threshold Limit Values (2011)
Carbon Black	PEL	3.5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Paraffinic distillate - Mist.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Amorphous silica	TWA	20 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
	TWA	0.8 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
Zinc oxide - Respirable fraction.	TWA	2 mg/m3	US. ACGIH Threshold Limit Values (2011)
	STEL	10 mg/m3	US. ACGIH Threshold Limit Values (2011)
Zinc oxide - Fume.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Zinc oxide - Total dust.	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Zinc oxide - Respirable fraction.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)

Chemical name	Type	Exposure Limit Values	Source
Asphalt - Aerosol, inhalable. - as benzene solubles	TWA	0.5 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Asphalt - Inhalable fraction. - as benzene solubles	TWA	0.5 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Asphalt - Fume.	TWA	5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Calcium carbonate - Total dust.	STEL	20 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Calcium carbonate - Respirable fraction.	TWA	3 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Calcium carbonate - Total dust.	TWA	10 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Calcium carbonate - Total dust.	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Magnesite - Total dust.	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Paraffinic Oil - Mist.	TWA	1 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (05 2013)
Paraffinic Oil - Inhalable fraction.	TWA	5 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
	TWA	5 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
Paraffinic Oil - Mist.	STEL	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
	TWA	5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Carbon Black - Inhalable	TWA	3 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (09 2011)
Carbon Black - Inhalable fraction.	TWA	3 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
Carbon Black	TWA	3.5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Paraffinic distillate - Mist.	TWA	0.2 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (05 2013)
Paraffinic distillate - Inhalable fraction.	TWA	5 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
Paraffinic distillate - Mist.	TWA	5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
	STEL	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)

Appropriate Engineering Controls	Mechanical ventilation or local exhaust ventilation may be required. Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of dust.

Individual protection measures, such as personal protective equipment

General information:	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory and eye protection may be needed in special circumstances, such as poorly ventilated spaces, heating, evaporation of liquids from large surfaces, spraying of mists, mechanical generation of dusts, drying of solids, etc.
Eye/face protection:	Wear safety glasses with side shields (or goggles).
Skin Protection	
Hand Protection:	Use suitable protective gloves if risk of skin contact.
Other:	Wear suitable protective clothing.
Respiratory Protection:	In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.
Hygiene measures:	Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product.

9. Physical and chemical properties

Appearance

Physical state:	solid
Form:	solid
Color:	Black
Odor:	Aromatic
Odor threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	No data available.
Flash Point:	> 93 °C > 199 °F
Evaporation rate:	Slower than Ether
Flammability (solid, gas):	No
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	No data available.
Vapor density:	Vapors are heavier than air and may travel along the floor and in the bottom of containers.
Relative density:	1.34
Solubility(ies)	

Solubility in water:	Insoluble in water
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.

10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	No data available.
Conditions to avoid:	Avoid heat or contamination.
Incompatible Materials:	Avoid contact with oxidizing agents (e.g. nitric acid, peroxides and chromates).
Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Toxicological information

Information on likely routes of exposure

Inhalation:	In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
Skin Contact:	May be harmful in contact with skin.
Eye contact:	Eye contact is possible and should be avoided.
Ingestion:	May be ingested by accident. Ingestion may cause irritation and malaise.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral

Product:	ATEmix: 11,947.81 mg/kg

Dermal
Product: ATEmix: 2,265.9 mg/kg

Inhalation
Product: Not classified for acute toxicity based on available data.

Specified substance(s):

Asphalt	LC 50 (Rat): > 94.4 mg/m3
Paraffinic Oil	LC 50 (Rat): 9.6 mg/l
Paraffinic distillate	LC 50 (Rat): > 5 mg/l
Amorphous silica	LC 50 (Rat): > 2.08 mg/l
Zinc oxide	LC 50 (Rat): > 5,700 mg/m3

Repeated dose toxicity
Product: No data available.

Skin Corrosion/Irritation
Product: No data available.

Specified substance(s):

Asphalt	in vivo (Rabbit): Not irritant Experimental result, Key study
Calcium carbonate	in vivo (Rabbit): Not irritant Experimental result, Key study
Magnesite	In vitro (Human, in vitro reconstituted epidermis model): Not irritant Experimental result, Key study
Paraffinic Oil	in vivo (Rabbit): Not irritant Experimental result, Key study
Carbon Black	in vivo (Rabbit): Not irritant Experimental result, Key study
Paraffinic distillate	in vivo (Rabbit): Not classified under EU DSD criteria; exposure period was 24 hours Experimental result, Key study
Amorphous silica	in vivo (Rabbit): Not irritant Experimental result, Key study
Zinc oxide	in vivo (Rabbit): Not irritant Experimental result, Key study

Serious Eye Damage/Eye Irritation

Product: No data available.

Specified substance(s):

Asphalt	Rabbit, 24 hrs: Not irritating
Calcium carbonate	Rabbit, 24 - 72 hrs: Not irritating
Magnesite	Reconstituted Corneal Epithelium model, 10 min: Not irritating
Paraffinic Oil	Rabbit, 24 hrs: Not irritating
Carbon Black	Rabbit, 24 - 72 hrs: Not irritating
Paraffinic distillate	Rabbit, 24 - 72 hrs: Not irritating
Amorphous silica	Rabbit, 24 hrs: Not irritating
Zinc oxide	Rabbit, 24 - 72 hrs: Not irritating

Respiratory or Skin Sensitization

Product: No data available.

Carcinogenicity

Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

Asphalt	Overall evaluation: Possibly carcinogenic to humans.
Carbon Black	Overall evaluation: Possibly carcinogenic to humans.
Paraffinic distillate	Overall evaluation: Carcinogenic to humans.

US. National Toxicology Program (NTP) Report on Carcinogens:

Paraffinic distillate Known To Be Human Carcinogen.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product: No data available.

In vivo

Product: No data available.

Reproductive toxicity

Product: No data available.

Specific Target Organ Toxicity - Single Exposure
Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure
Product: No data available.

Aspiration Hazard
Product: No data available.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish
Product: No data available.

Specified substance(s):
Zinc oxide — LC 50 (Fathead minnow (Pimephales promelas), 96 h): 2,246 mg/l Mortality

Aquatic Invertebrates
Product: No data available.

Chronic hazards to the aquatic environment:

Fish
Product: No data available.

Specified substance(s):
Asphalt — NOAEL (Oncorhynchus mykiss, 28 d): >= 1,000 mg/l Read-across from supporting substance (structural analogue or surrogate), Key study
LL 50 (Oncorhynchus mykiss, 28 d): > 1,000 mg/l Read-across from supporting substance (structural analogue or surrogate), Key study

Paraffinic distillate — NOAEL (Oncorhynchus mykiss, 28 d): 20.01 mg/l QSAR QSAR, Key study

Aquatic Invertebrates
Product: No data available.

Toxicity to Aquatic Plants
Product: No data available.

Persistence and Degradability

Biodegradation
Product: No data available.

BOD/COD Ratio
Product: No data available.

Bioaccumulative potential
Bioconcentration Factor (BCF)
Product: No data available.

Partition Coefficient n-octanol / water (log Kow)
Product: No data available.

Mobility in soil: No data available.

Other adverse effects: No data available.

13. Disposal considerations

Disposal instructions: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated Packaging: No data available.

14. Transport information

TDG:

Not Regulated

CFR / DOT:

Not Regulated

IMDG:

Not Regulated

15. Regulatory information

US Federal Regulations
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

Chemical Identity	Reportable quantity
Asphalt	100 lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Delayed (Chronic) Health Hazard

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

Chemical Identity	Reportable quantity
Asphalt	100 lbs.
Zinc oxide	

SARA 311/312 Hazardous Chemical

Chemical Identity	Threshold Planning Quantity
Asphalt	10000 lbs
Calcium carbonate	10000 lbs
Magnesite	10000 lbs
Paraffinic Oil	10000 lbs
Carbon Black	10000 lbs
Paraffinic distillate	10000 lbs
Amorphous silica	10000 lbs
Zinc oxide	10000 lbs

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65

WARNING
Cancer - www.P65Warnings.ca.gov

US. New Jersey Worker and Community Right-to-Know Act

Chemical Identity
Asphalt
Calcium carbonate
Magnesite
Paraffinic Oil
Carbon Black
Paraffinic distillate

US. Massachusetts RTK - Substance List

Chemical Identity
Asphalt
Calcium carbonate
Magnesite
Paraffinic Oil
Carbon Black
Paraffinic distillate

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity
Asphalt
Calcium carbonate
Paraffinic Oil
Carbon Black
Paraffinic distillate

US. Rhode Island RTK

Chemical Identity
Asphalt
Calcium carbonate
Magnesite
Paraffinic Oil
Carbon Black
Paraffinic distillate

International regulations

Montreal protocol
Not applicable

Stockholm convention
Not applicable

Rotterdam convention
Not applicable

Kyoto protocol
Not applicable

VOC:
Regulatory VOC (less water and exempt solvent) : 0 g/l

VOC Method 310 : 0.00 %

Inventory Status:

Australia AICS:	One or more components in this product are not listed on or exempt from the Inventory.
Canada DSL Inventory List:	All components in this product are listed on or exempt from the Inventory.
EINECS, ELINCS or NLP:	One or more components in this product are not listed on or exempt from the Inventory.
Japan (ENCS) List:	One or more components in this product are not listed on or exempt from the Inventory.
China Inv. Existing Chemical Substances:	One or more components in this product are not listed on or exempt from the Inventory.
Korea Existing Chemicals Inv. (KECI):	One or more components in this product are not listed on or exempt from the Inventory.
Canada NDSL Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
Philippines PICCS:	One or more components in this product are not listed on or exempt from the Inventory.
US TSCA Inventory:	All components in this product are listed on or exempt from the Inventory.
New Zealand Inventory of Chemicals:	One or more components in this product are not listed on or exempt from the Inventory.
Japan ISHL Listing:	One or more components in this product are not listed on or exempt from the Inventory.
Japan Pharmacopoeia Listing:	One or more components in this product are not listed on or exempt from the Inventory.

16.Other information, including date of preparation or last revision

Revision Date:	10/12/2018
Version #:	1.2
Further Information:	No data available.

Disclaimer:

For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.

TREMCO
Construction Products Group

Commercial Sealants & Waterproofing
3735 Green Road
Beachwood, OH 44122
US: 800.321.7906
Canada: 800.363.3213
www.tremcosealants.com

We certify that TREMproof® 6100 has been tested against **Canadian Specification CAN/CGSB 37.50 – M89** and does conform to the specification requirements.

TREMproof 6100 is approved by the Miami-Dade County Product Control Division.

TREMproof 6100 is approved by the City of Los Angeles (COLA) Department of Building and Safety as both a waterproofing as well as methane barrier membrane under research report number RR25299.

Tremco Commercial Sealants & Waterproofing
3735 Green Road
Beachwood, OH 44122
US: 800.852.9068
Canada: 800.363.3213
www.tremcosealants.com

September 30, 2020

To Whom It May Concern:

RE: TREMproof 6100—Green Building Product Information (LEED v4.1 Information)

Tremco Incorporated is an organization that is committed to quality, our employees, and our environment. We are responsive to both internal and external customers, and we pledge to treat everyone with good stewardship and respect.

Tremco Incorporated certifies the following for TREMproof 6100:

Building Product Disclosure and Optimization:

TREMproof 6100 is manufactured in Missauga, Ontario, Canada.

No single extracted material is used to produce the majority of this product.

Recycled content for TREMproof 6100 is 6.34% (post industrial). Because this product is partially created with recycled content, consumers are able to work towards one Building Product Disclosure and Optimization- Raw Materials Extraction point.

Low Emitting Materials - VOC Content Information:

TREMproof 6100 is an exterior applied waterproofer with a VOC content of <1g/L equaling <1% as applied/mixed. as such, VOC levels are lower than the limits set by SCAQMD rule 1113.

Green Chemistry:

Tremco Incorporated is dedicated to the environment and prides itself on making its products as sustainable as possible. We are pleased to report that this product is produced without any Red List chemicals. As such, it can be used to assist in finishing projects aimed towards achieving a Living Building Challenge certification.

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Manufacture Inventory (reported to 1000ppm):

Chemical Name or Role	CAS Number	Amount	GHS Hazard
Asphalt	8052-42-4		
Calcium carbonate	471-34-1		
Magnesite	546-93-0		
Paraffinic Oil	64742-65-0		
Polymer		<15%	Non-Hazardous
Carbon Black	1333-86-4		
Paraffinic distillate	64742-04-7		
Binder		<1%	Non-Hazardous
Amorphous silica	7631-86-9		
Zinc oxide	1314-13-2		

Additional Information:

Should you have any questions or require additional information, please do not hesitate to contact Technical Services or your local Tremco Field Representative.

Sincerely,

Joe Kravetz

Product Steward

Compliance and Regulatory Affairs

BELOW-GRADE WATERPROOFING

Cold Fluid-Applied | Hot Fluid-Applied | Sheet-Applied | HDPE/Bentonite Hybrid Systems | Crystalline | Drainage | Protection | Reinforcement | Accessories

Below-Grade Waterproofing, Above and Beyond

Below-grade waterproofing is critical to the long-term performance of any structure -- and for over 90 years, Tremco has been providing tested, proven waterproofing products to architects, distributors, building owners and contractors all over the world.

We are proud to offer a wide array of options that provide maximum protection and expedite construction schedules: cold fluid-applied, hot fluid-applied, sheet-applied, HDPE/bentonite, crystalline, and hybrid waterproofing systems.

And in addition to a complete line of compatible primers, drainage, protection courses, sealants, water stops and reinforcing materials, Tremco is also uniquely positioned to be your single-source for high-performance solutions ***for all six sides of the building enclosure.*** From the foundation to the roof, and everything in-between.

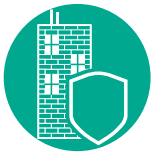
Tremco Commercial Sealants & Waterproofing is now proud to be part of Tremco Construction Products Group.

The Tremco Construction Products Group Difference

Speed construction or restoration. Simplify installation. Extend the construction season. A Tremco Construction Product Group (CPG) single-source building envelope means more for everyone – more satisfied contractors, more comfortable occupants or tenants, and more efficient structures and cost-effective operation for owners.

Faster Construction Time

Lightweight, fast-curing and prefabricated products mean less occupant disruption, faster return to service, less revenue lost – and no call-backs.



Stronger and More Resilient

Our systems are designed for maximum durability, many with service lives far surpassing that of competing systems.

Cost Effective for the Long Term

A broad range of products can fit any project budget – but our energy efficiency and maintenance solutions can also help you ensure cost-effective ownership and operation for the long term.

One Point of Contact

Our products and systems are backed by industry-leading warranties – all from a single point of contact. We can also help with everything from asset management to diagnostics to installer training.

Any Look You Want

A wide range of colors and finishes like brick, granite, metals, stucco and more provide maximum flexibility in your roof and façade aesthetic.

Leak-Free Performance

Products provide maximum protection from air, moisture and thermal infiltration – and are performance tested in our one-of-a-kind Sustainable Building Solutions Test Facility.

Better Insulated

Industry-leading brands provide solutions for more efficient building construction and operation, and exceed strict energy codes for insulation.

Leading Edge Sustainability

Our building solutions help you meet green building standards like Net Zero, Living Building Challenge, Passive House and more.

CONTENTS

TREMPROOF® 201/60

TREMproof® 201/60 is a high-solids, VOC compliant, modified polyurethane waterproofing membrane. It is a one-part moisture-curing elastomer available in three viscosities: Self-Leveling (SL), Roller (R) and Trowel. *(Trowel for detailing work only).*

Features & Benefits

- TREMproof 201/60 is an economical choice for when construction schedules are not compressed.
- Compatible with Tremco sealants, coatings and expansion joints, which is essential for tie-ins, detailing and penetrations

Common Applications

TREMproof 201/60 is designed for use on backfilled walls, primarily on concrete and masonry.

TREMPROOF® 260

TREMproof® 260 is a polymer-enhanced, single-component, fluid-applied, asphalt emulsion, below-grade waterproofing membrane.

Features & Benefits

- A cost-effective solution that can be applied to damp or green concrete allowing for application more quickly after forms are removed
- The ability to co-spray the material to speed the curing process allows for fast-tracking construction and reduces the potential for washout
- Monolithic asphaltic membrane protects seams and seals penetrations reducing time needed for detail work
- Exothermic reaction during concrete cure builds adhesion of the membrane to the structure, creating a bonded waterproofing assembly
- Extreme durability with exceptional elongation and crack-bridging

Common Applications

Foundation walls, retaining walls, most backfilled applications — and in approved methane barrier applications.

TREMPROOF® 250GC

TREMproof® 250GC is a cold fluid-applied elastomeric modified polyurethane waterproofing membrane that is rapid-curing, high solids, VOC-compliant and can be applied to damp/green concrete. It is a one-part moisture-curing elastomer available in self-leveling, roller and trowel *(detail only) viscosities.*

Features & Benefits

- Can be applied in as little as 24 hours following the removal of concrete forms, and applied to damp concrete, reducing delays.
- The unique ability to catalyze TREMproof 250GC SL with water speeds cure times, especially in cold temperatures and low relative humidity, to further condense the construction schedule.
- Can be applied at a rate of up to 120 mils in a single lift to speed application, or in multiple lifts to achieve a 215-mil, high-build system when maximum protection is required.

Common Applications

Backfilled walls, split slab applications, planters and submerged conditions.

TREMPROOF® PUMA

TREMproof® PUMA is a premium waterproofing system that utilizes polyurethane-methacrylate (PUMA) technology, offering superior elongation over traditional MMA/PMMA technology systems. Systems are composed of a primer (Tremco PUMA Primer) and a base coat (Tremco PUMA BC or BC LM), and cured using Tremco PUMA Initiator.

Features & Benefits

- Delivers extreme durability while maintaining excellent crack-bridging characteristics, eliminating the need for reinforcing fabric
- 30 to 45-minute cure time between coats: Giving the ability to proceed to overburden 1 hour after application.
- Can be applied at temperatures as low as 20 °F (-7 °C)
- Premium waterproofing system backed by an all-inclusive warranty

Common Applications

Ideal for waterproofing concrete slabs, split-slab, paver systems, planters and vegetated roofs.

TREMPROOF® 6100

TREMproof 6100® is a one-part, 100% solids, hot-applied, rubberized asphalt waterproofing membrane. TREMproof 6100 can be formulated with up to 25% recycled content. *(Contact your local Tremco Sales Representative for additional information.)*

Features & Benefits

- Create a full system by combining the reinforcing layer and other components.
- Reliable technology with an extensive trusted history.

Common Applications

It is applied to horizontal concrete surfaces and is formulated exclusively for application to the top level of structures, including applications such as plaza decks, roof decks and unexposed top-level parking areas. Ideal for new and remedial waterproofing applications.

TREMPROOF® 6100 BM

TREMproof® 6100BM is a hot-applied rubberized asphalt waterproofing membrane. The superior long-term integrity of TREMproof 6100BM helps it become an integral part of the total traffic system.

Features & Benefits

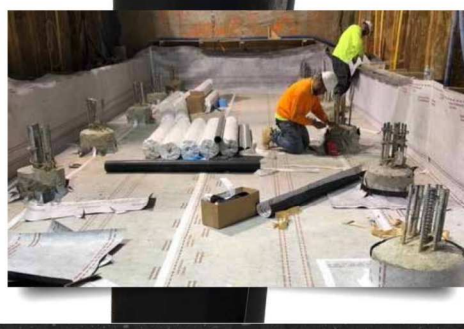
- Designed for use under concrete or pavement, and becomes an integral part of the completed traffic coating systems
- Can be applied horizontally or vertically
- Protects occupied areas below against water intrusion

Common Applications

Can be applied to horizontal or vertical concrete slabs and is designed for use on surfaces to be subsequently paved or concreted over to ultimately carry vehicular traffic.

TREMPROOF™ AMPHIBIA™

TREMproof™ Amphibia™ waterproofing membrane is self-healing, self-sealing and self-repairing. It has three active layers - a watertight EPDM barrier, an active core with the ability to seal when penetrated and an active barrier which seals the overlap and helps resist lateral movement of water. A non-woven fabric layer promotes mechanical adhesion to concrete.



Features & Benefits

- Self-healing, self-sealing ability provides immediate protection & less time for repair work, including around nails and fasteners
- Active layer self-seals overlaps to resist lateral water migration
- Non-woven geotextile layer allows for integral adhesion to concrete
- Impermeable EPDM layer allows use in hydrostatic conditions
- Can be exposed to weather & construction elements

Common Applications

Lagging/retaining walls in blindside applications, below slab-on-grade applications, buried forms like elevator pits, water tanks and more

TREMPROOF™ 560A

TREMproof™ 560A is a self-adhesive waterproofing membrane specifically-designed for below grade waterproofing. The membrane is composed of SBS modified bitumen with a tri-laminated woven polyethylene facer. A silicone release paper protects the adhesive side of the membrane.

Features & Benefits

- Can be applied to damp and green concrete to accelerate construction
- Manufactured to a preset, uniform thickness for uniform coverage
- Highly-flexible material easily forms around corners and contours
- Available in both summer grade — 50°F to 122°F (10°C to 50°C) — and winter grades: 14°F to 104°F (-10°C to 40°C)

Common Applications

Designed for poured concrete and CMU backfilled walls. TREMproof 560A is approved for use with Nudura® Insulated Concrete Forms (ICF).

PARASEAL®

Paraseal® is a sheet waterproofing membrane consisting of 15 mils of HDPE and expandable, granular bentonite. The composite weight of the material is up to 1.0 lb/ft², creating a dual waterproofing system.

Features & Benefits

- The nature of the Paraseal also allows for installation over green or damp surfaces accelerating the construction process
- The bentonite can expand up to 8 times its original thickness to stop water that may make it past the HDPE layer, providing a second layer of protection

Common Applications

Paraseal is designed for use on backfilled walls, and can be used on damp or green concrete

PARASEAL® LG

Paraseal® LG is a sheet waterproofing membrane consisting of 20 mils of HDPE, expandable, granular bentonite and a protective layer of spun-bonded polyester. The composite weight of the material is up to 1.0 lb/ft², creating a dual waterproofing membrane.

Features & Benefits

- Combines HDPE and bentonite with a protective third layer of spun-bond polyester to keep the membrane intact during the concrete pour or shotcrete application.
- Can installation over green or damp surfaces to speed construction.
- The bentonite can expand up to 8 times its original thickness to stop water that may make it past the HDPE layer.

Common Applications

Designed for use over lagging on blindside walls, under slab, and buried forms such as elevator pits. Can also be used on backfilled walls.

PARASEAL® GM

Parasesal® GM is a sheet waterproofing and methane-mitigating membrane consisting of 20 mils of HDPE and expandable, granular bentonite. The composite weight of the material is up to 1.0 lb/ft², creating a dual waterproofing system. The HDPE extends beyond the bentonite on the perimeter edges to create a clean surface for tape installation.

Features & Benefits

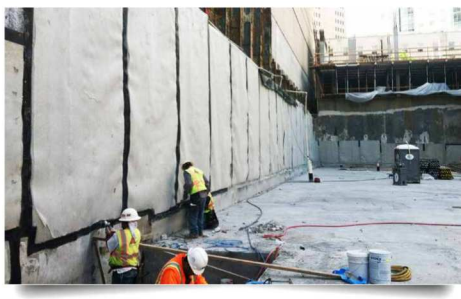
- Combines with Para JT Tape seam tape and Parastick 'n' Dry Tape to create a flexible, waterproof and methane-mitigating membrane.
- Allows for installation over green or damp surfaces — accelerating the construction process.
- The bentonite can expand up to 8 times its original thickness to stop water that may make it past the HDPE layer.

Common Applications

Designed for use in post-installation submerged conditions on backfilled walls. It may be used in under-slab and split-slab conditions.

PARASEAL® GM 20MIL / PARASEAL® GM 60MIL

Parasesal® GM 20 mil and Parasesal® GM 20 mil are sheet waterproofing and methane-mitigating membranes consisting of 20 or 60 mils of HDPE, expandable, granular bentonite and a protective layer of spun-bonded polyester. The HDPE and bentonite create a dual waterproofing system.



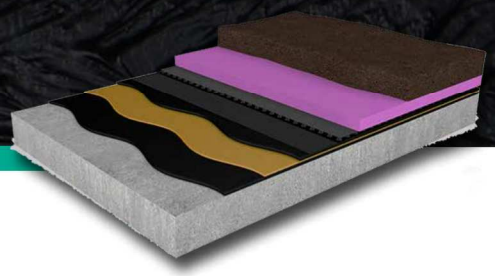
Features & Benefits

- Combines with Para JT Tape seam tape and Parastick 'n' Dry Tape to create a flexible, waterproof and methane-mitigating membrane.
- Allows for installation over green or damp surfaces.
- The bentonite can expand up to 8 times its original thickness to stop water that may make it past the HDPE layer.

Common Applications

Designed for post-installation use in submerged conditions, on blindside walls, and under slab where hydrostatic water head and/or methane conditions exist. Can be used on backfilled walls.

TREMPROOF® DUAL WATERPROOFING SYSTEM



TREMproof® Dual Waterproofing System (DWS) is a dual membrane waterproofing system comprised of TREMproof TRA sheeting embedded into TREMproof 250GC. This unique waterproofing system is designed to have tenacious adhesion, long term durability, and remarkable chemical stability. The elastomeric properties of the system's components enable the complete assembly to withstand the most demanding waterproofing needs.

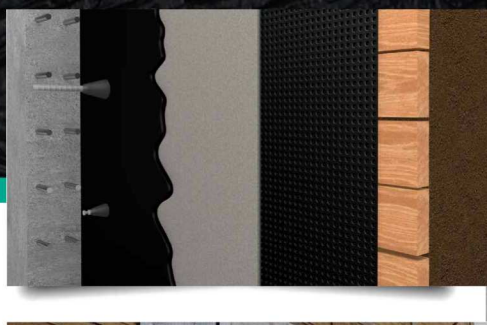
Features & Benefits

- Designed to withstand the most rigorous waterproofing conditions.
- Can be applied to damp or green concrete in as little as 24 hours after form removal (when using TREMproof 250GC)
- Can help fast track construction schedules, saving time and money
- Cold-applied membrane minimizes the need for special equipment

Common Applications

Can be used to waterproof plaza decks, terraces, backfilled walls, planters, split slabs and more.

TREMPROOF® TRIPLE WATERPROOFING SYSTEM



TREMproof® Triple Waterproofing System (TWS) is a blindside and underslab triple-layer waterpoofing assembly consisting of 20 or 60 mils of HDPE, expandable granular bentonite and a protective layer of spun-bonded polyester, coated with 60 dry mils of polymer-enhanced, liquid-applied asphalt membrane. This durable system creates a physical bond to concrete that eliminates the possibility of lateral water movement.

Features & Benefits

- Innovative triple-layer system, tested per ASTM standards
- Protected bentonite allows for longer exposure to the elements
- Monolithic asphaltic membrane protects seams and seals penetrations, reducing time required for detail work
- Extreme durability with exceptional elongation and crack-bridging

Common Applications

Blindside walls (Cast-in-place and shotcrete). Under-slab/below slab on grade. Hydrostatic conditions.

PERMAQUIK® 200

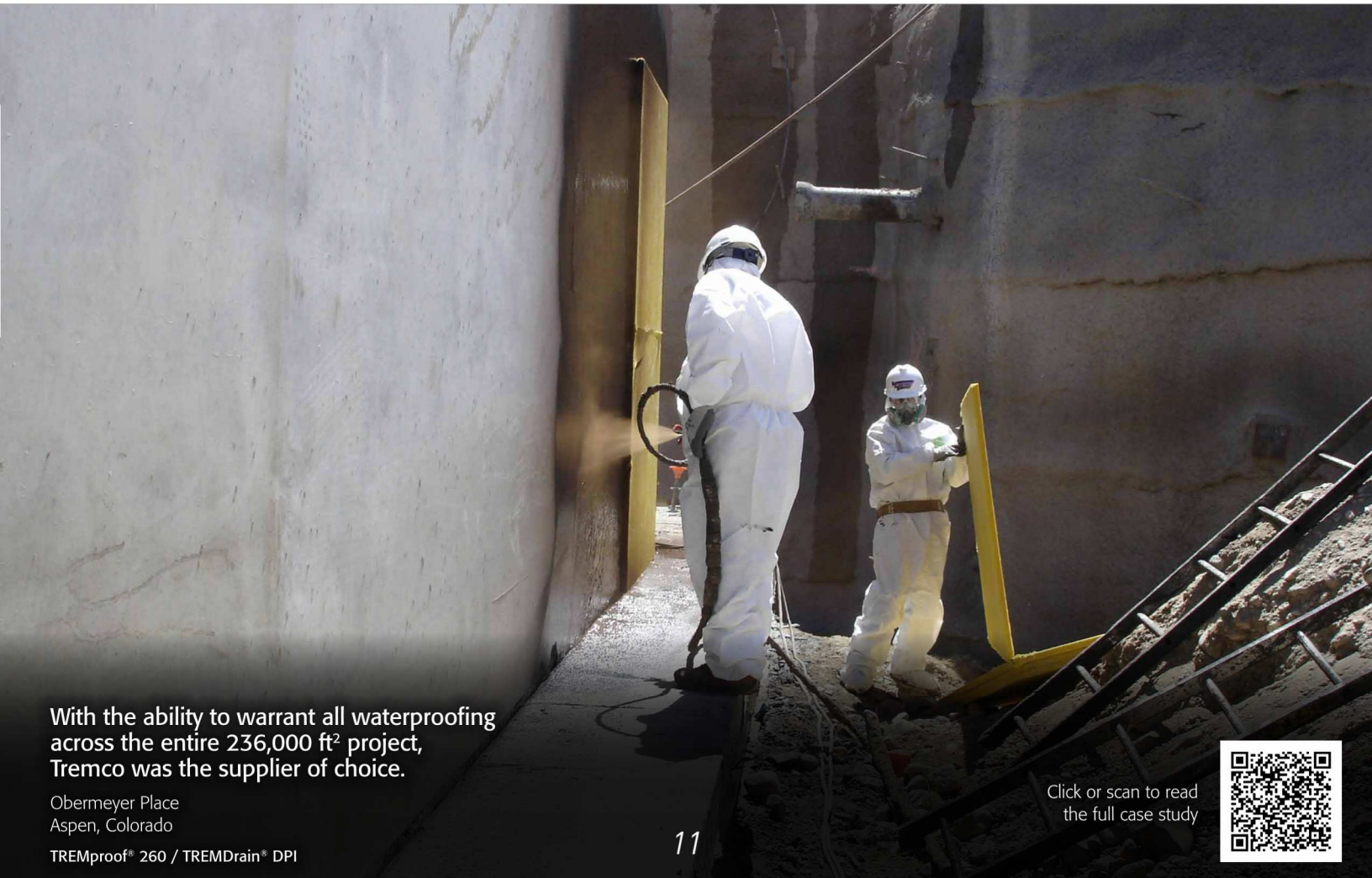
Permaquik® 200 Crystalline Waterproofing is a capillary waterproofing formulation of proprietary blends of chemicals, quartz sand and cement. The chemicals in Permaquik 200 require the presence of moisture to set off a chemical reaction from within the concrete. When combined with "free lime", these chemicals form long-chained complexes, which crystallize and penetrate deeply into the concrete, eliminating the migration of water. Independent tests show penetration up to 2" (51 mm) in 28 days.

Features & Benefits

- Integrates and combines with the concrete from within, thus forming a barrier which cannot easily be damaged.
- Crystalline tolerates water, so there is no need to continually dry the surface before application many other systems.

Common Applications

Foundation walls and floor slabs, suspended or in-ground pools, and in parking garage floor applications.



With the ability to warrant all waterproofing across the entire 236,000 ft² project, Tremco was the supplier of choice.

Obermeyer Place
Aspen, Colorado

TREMproof® 260 / TREMDrain® DPI

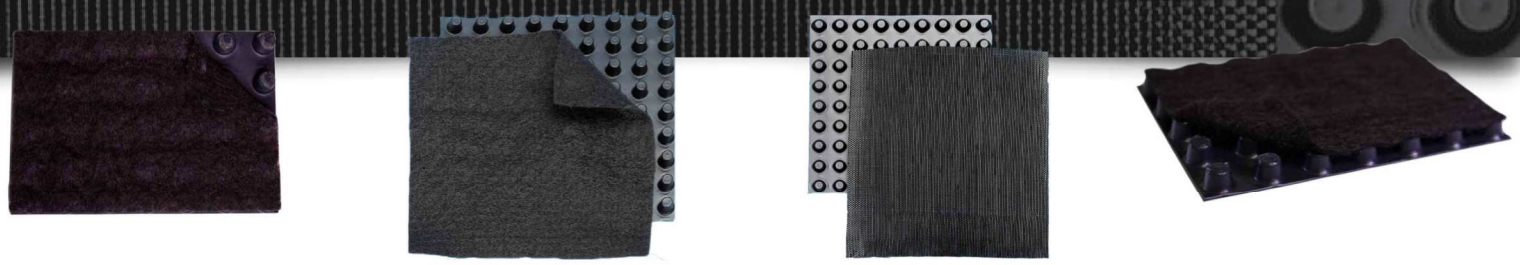
Click or scan to read the full case study

DRAINAGE

Drainage components, when incorporated, enhance the performance of the overall waterproofing system and reduce the amount of hydrostatic pressure and weight of water-saturated soil. Prefabricated drainage is engineered to create air space when applied over a membrane.

Tremco's TREMDrain® series of prefabricated drainage boards consists of a dimpled core which provides excellent water flow when under compaction. TREMDrain can be used for vertical and horizontal applications.

TREMDrain products are offered with a variety of combinations of filter fabrics, drainage cores, an optional protective polymeric film and a TotalDrain System to replace perforated pipe/aggregate collection systems. Tremco's TREMDrain series of drainage mats are compatible with TREMproof and Paraseal membranes.



TREMDrain®

A two-layer drainage mat that consists of a polystyrene core and a spun-bonded polypropylene fabric.

TREMDrain® 1000

This two-layer drainage mat consists of a polystyrene core and spun-bonded polypropylene fabric. It is available with or without the polymeric film attached to the back of the drainage core and offers great compressive strength.

TREMDrain® 2000

A three-layer drainage mat that consists of a woven polypropylene fabric, polystyrene core and polymeric film. The woven fabric has great puncture resistance, making it ideal for horizontal applications where concrete will be poured on top of the drainage.

TREMDrain® 3000

This two-part prefabricated drainage material and protection board consists of a formed polystyrene core covered on one side with a woven polypropylene filter fabric. This fabric allows water to pass into the drainage core while restricting the movement of soil particles. The plastic core provides compressive strength and moderate flow capacity.

TREMDrain® 6000

A multi-composite prefabricated drainage material and protection board consisting of a formed polypropylene core covered on one side with a high-strength, spun-bonded polypropylene filter fabric. The fabric allows water to pass into the drainage core while filtering out fine particulates.

TREMDrain® 6600

This multi-composite prefabricated drainage material and protection board consists of a formed polypropylene core covered on one side with a high strength, non-woven needle-punched polypropylene filter fabric heat-bonded to the core.

TREMDrain® DPI

TREMDrain® DPI is an drainage, protection and insulation board for use with TREMproof® 260 Spray-Applied Waterproofing.

TREMDrain® S

TREMDrain S consists of a spun-bonded polypropylene fabric, a polystyrene core and a polymeric film backing. It has the highest compressive strength in the TREMDrain series.

TREMDrain® GS

A drainage mat consisting of a perforated polystyrene core with fabrics attached to both sides. Installed with the dimples down, the core also functions as a water retention layer.

TREMDrain® QSP

This three-part prefabricated drainage panel/protection board consists of a formed, perforated polystyrene core, covered on the dimpled side with a non-woven, needle-punched polypropylene filter along with a breathable cross-hatched fabric on the reverse.

TREMDrain® Total Drain

A two-layer drainage mat with a unique polystyrene core with a high-profile drainage section for water collection/flow and a transition section to connect to other TREMDrain drainage mats.

PROTECTION COURSES

Tremco® Elastomeric Sheeting
Provides a durable, flexible, tear-resistant bridge in areas of high movement such as expansion joints, construction joints and flashing where membrane waterproofing applications such as TREMproof® 6100, TREMproof 201/60 or TREMproof 250GC are being used.

Tremco® HDPE Protection Courses
20-mil sheet that not only serves as a protection course but also acts as a vapor barrier in waterproofing applications. A 40-mil sheet prohibits aggressive growing roots from affecting the performance characteristics of a waterproofing membrane in planters and greenscape applications.

POWERply® Standard Smooth
Smooth surfaced, modified bitumen sheet used in conjunction with recommended waterproofing membranes as an extremely heavy-duty protection course, primarily in horizontal applications.

POWERply® Standard Smooth
A rough-surfaced, modified bitumen sheet used in conjunction with waterproofing membranes as an extremely heavy-duty protection course, primarily in horizontal applications.

Tremco® 2550/2560
Tremco 2550 and 2560 are semi-flexible asphaltic sheets in 1/8" and 1/4", respectively. It consists of a core made from a blend of asphalt, plasticizer and inert fillers. This core is sandwiched between two skins of an asphalt-saturated fiberglass. This is then molded and formed under heat and pressure into sheets.

Tremco® 2450
Extruded, hollow-core polypropylene/polyethylene copolymer with a standard thickness of 0.08" (2.2 mm).

Tremco® Protection Mat
Ultra-lightweight, extremely tough 14-oz protection mat for waterproofing membranes in both vertical and horizontal applications. It is made of non-biodegradable polyester and can be installed within minutes over a cured membrane to give maximum protection against backfill, poured slabs and the traffic/work of other trades.

REINFORCING MATERIALS

Tremco® Elastomeric Sheeting
Provides a durable, flexible, tear-resistant bridge in areas of high movement such as expansion joints, construction joints and flashing where waterproofing membranes such as TREMproof® 6100, TREMproof 201/60 or TREMproof 250GC are being used.

Tremco® Reinforcing Fabrics
Spun-bonded polyester fabric consisting of a nonwoven fabric of continuous filament polyester fibers that are randomly arranged. Fibers are highly-dispersed and bonded at the filament junctions.

Tremco® 2011
An open-weave fabric consisting of glass fiber yarn saturated with synthetic resins. The glass fiber in this product will not rot, mildew or wick water into the body of the coating material.

TREMproof® PUMA Flashing System
TREMproof® PUMA Flashing System is a quick-cure, liquid-applied system based on PUMA technology. This system cures within 30 minutes, even in temperature below freezing, and has tenacious adhesion to concrete and metal. TREMproof PUMA Flashing System is composed of a primer (Tremco PUMA Primer) and a UV stable base coat (Tremco PUMA Flashing). A top coat (Tremco PUMA TC) can be used when needed for aesthetic reasons. All components are cured using Tremco PUMA Initiator.

Tremco® DualFlex®
Tremco DualFlex® is a reinforcing flashing that consists of a central strip of elastomeric SEBS rubber flanked on either side by an absorbent non-woven felt. The felt allows for easy integration of the flashing and the waterproofing membrane. The elastomeric SEBS rubber provides superior movement capability without compromising the waterproofing.

ACCESSORIES

Dymonic® 100
Dymonic 100 is a high-performance, medium-modulus, low-VOC, UV stable, non-sag polyurethane sealant. It is a durable, flexible sealant that offers excellent performance in moving joints and exhibits tenacious adhesion once fully-cured.

Paraseal® Para JT™
Paraseal Para JT is an adhesive joint tape compound formulated with cross-linked polymeric elastomers. It can be combined with a Paraseal LG membrane in vapor-proofing installations for sealing around penetrations — or with Paraseal GM to create double seals on all joints.

Paraseal® Paraboots
Paraboots are a series of 60-mil, high-density polyethylene prefabrricated covers designed to be used with Paraseal membranes to maintain a continuous waterproofing and gas mitigating system at tieback heads of the soil retention system.

Paraseal® Paragranular™
Paragranular is a premium Wyoming-type, high-swelling, granular sodium bentonite. When in the presence of water, Paragranular reacts and forms an impervious waterproof gel. It is designed to work in conjunction with Paraseal products to form a waterproof transitional seal.

Paraseal® Paramastic
An expandable mastic for use with Paraseal waterproofing membranes. It is used to protect against water leakage where penetrations, honeycombs, unfilled ties or spalled concrete exists.

Paraseal® Paraterm™ Bar
When fastened through pre-cut holes, this aluminum alloy bar provides tight, straight and extremely long lived terminations, caulk troughs and drip edges.

Paraseal® Permanent Seam Tape
A rubberized asphalt membrane laminated to a polyethylene reinforcing film. A removable release paper protects the adhesive membrane face until removed during installation. it is used for sealing the seams of Paraseal applications when flood testing is desired, on all seams of Paraseal Saltwater Grade applications and with Paraseal LG when installed for vapor-proofing.

TREMproof® TRA Elastomeric Sheeting
A protective waterproofing course that is compounded from a blend of EPDM and SBR thermostat elastomers. This sheet is reinforced with a high-strength, polyester-woven scrim. It is designed to provide a durable, flexible, tear-resistant bridge in areas of high movement where cold and hot-applied membranes are being utilized.

Ultraseal® P-201A
A high-performance hydro-reactive mastic for sealing and waterproofing passing bodies and cracks. It is a waterstop used in new construction and repair applications. It can be applied to damp and uneven surfaces and functions in a wide range of temperatures and ground water conditions

Tremco® 10-Mil Class-A Vapor Barrier
Tremco® 10-Mil "Class A" Vapor Barrier is a reinforced polyethylene-based vapor barrier designed to prevent moisture and reduce harmful radon and methane gas from migrating through concrete slabs-on-grade.

Tremco Construction Products Group: A Complete Family of Products

- Nudura™ Insulated Concrete Form (ICF) Systems
- Dryvit™ and Tremco® Flashing, and Air and Vapor Barrier Systems
- Willseal™ Pre-Compressed Foam Expansion Joints
- Tremco Traffic Coating Systems, Sealants, Adhesives and Transition Assemblies
- Dryvit Coatings, Stains, Textured Finishes and Consinuous Insulation Systems

WATERPROOFING AND DRAINAGE SELECTION GUIDE*

TREMproof®, Paraseal® and TREMDrain®

	Fluid	TREMproof 250GC	TREMproof 201/60	TREMproof 260	TREMproof 6100	TREMproof PUMA	Sheet	Paraseal	Paraseal LG	Paraseal GM	Paraseal GM/LG 20mil	Paraseal GM/LG 60mil	TREMproof Amphibia	TREMproof 560A	Drainage	TREMDrain	TREMDrain S	TREMDrain 1000	TREMDrain 1000 PF	TREMDrain 2000	TREMDrain Total Drain	TREMDrain QSP
Vertical																						
Backfilled Wall (<20')		●	●	●				●	●					●		●					●	●
Backfilled Wall (>20')		●	●	●				●	●					●				●	●		●	●
Blindside/Lagging Wall (<20')				●					●		●	●	●			●					●	
Blindside/Lagging Wall (>20')				●					●		●	●	●					●	●		●	
Horizontal																						
Split Slab or Paver		●	●		●	●											●		●	●		
Below Slab on Grade									●		●	●	●				●					
Vegetated Roofs		●			●	●																
Planters		●			●	●														●		
Other																						
Methane Barrier**		●		●						●	●	●										
Submerged Conditions**		●			●						●	●	●									
Green/Damp Concrete		●		●				●	●	●	●	●		●		●	●	●	●	●	●	

* The Waterproofing and Drainage Selection Guide is to be used as a general reference and reflects two of the components that become integrated into a waterproofing system.

Please consult your local Tremco Manufacturer's Representative for regional recommendations based on your local building practices and warranty requirements.

** Please consult your local Tremco Manufacturer's Representative for recommendations and approval of your specific application.

Reference the current product data sheet on our website at **www.tremcosealants.com** for more specific product information.

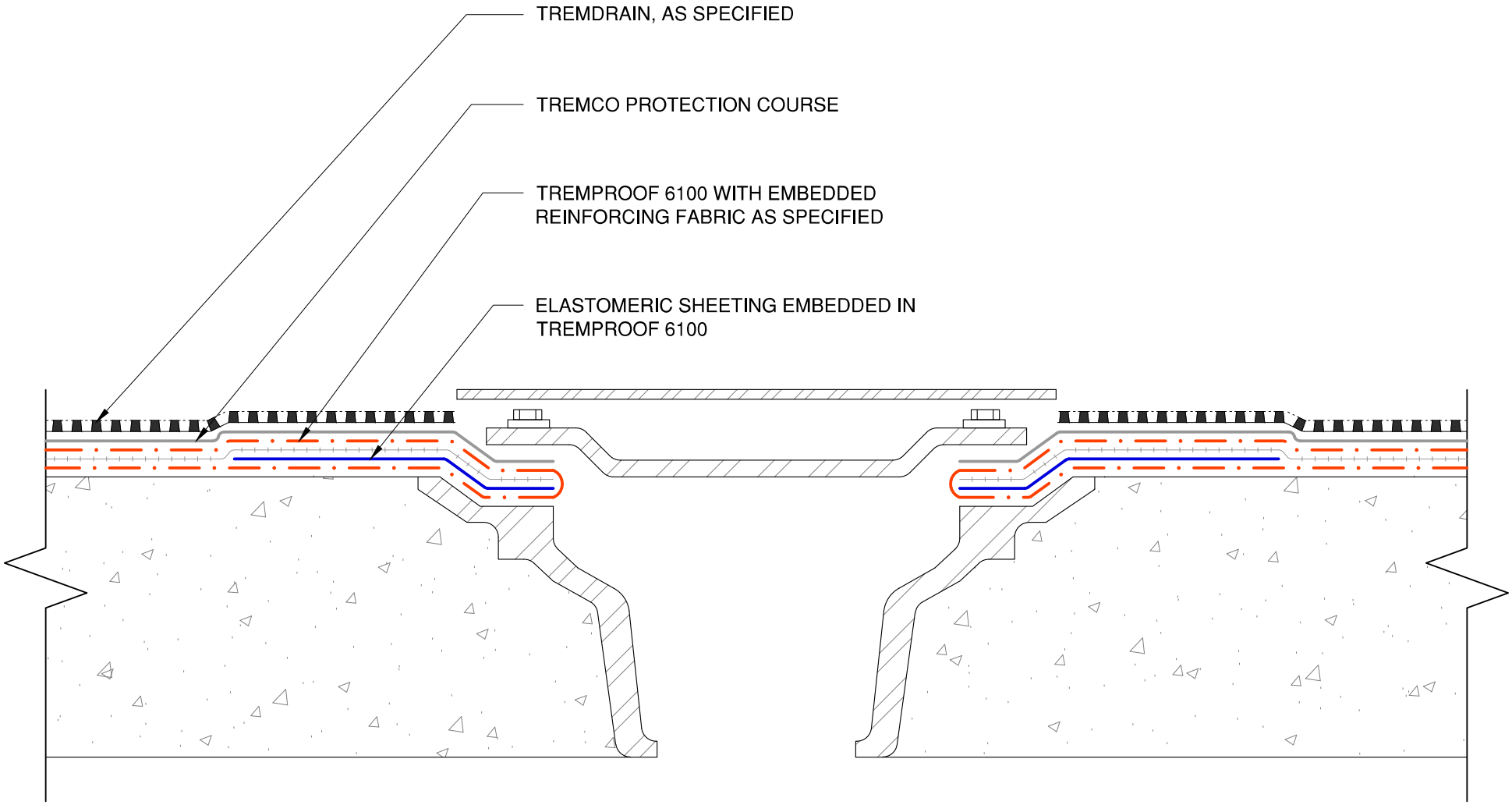
For priming recommendations, please contact Tremco Technical Services or reference the Primer Guide on our web site.

Tremco Commercial Sealants & Waterproofing | 3735 Green Road | Beachwood, OH 44122 | US: 800.852.9068 | CAN: 800.363.3213 | tremcosealants.com

Tremco Construction Products Group (CPG) brings together Tremco Incorporated's Commercial Sealants & Waterproofing and Roofing & Building Maintenance operating divisions; Dryvit Systems, Inc.; Nudura Inc.; Willseal; Weatherproofing Technologies, Inc. and Weatherproofing Technologies Canada, Inc.

Part of TREMCO Construction Products Group

NOTE: TREMPRIME QD OR TREMCO APPROVED PRIMER MUST BE APPLIED BEFORE THE APPLICATION OF TREMPROOF 6100



TREMproof 6100

TREMCO

Tremco Technical Support: 866-209-2404

Detail: TREMproof 6100 at Drain

Drawn by: KAB	Checked by: WH	Scale: NTS	Date: 3/2/2022

File Name: H-D-01

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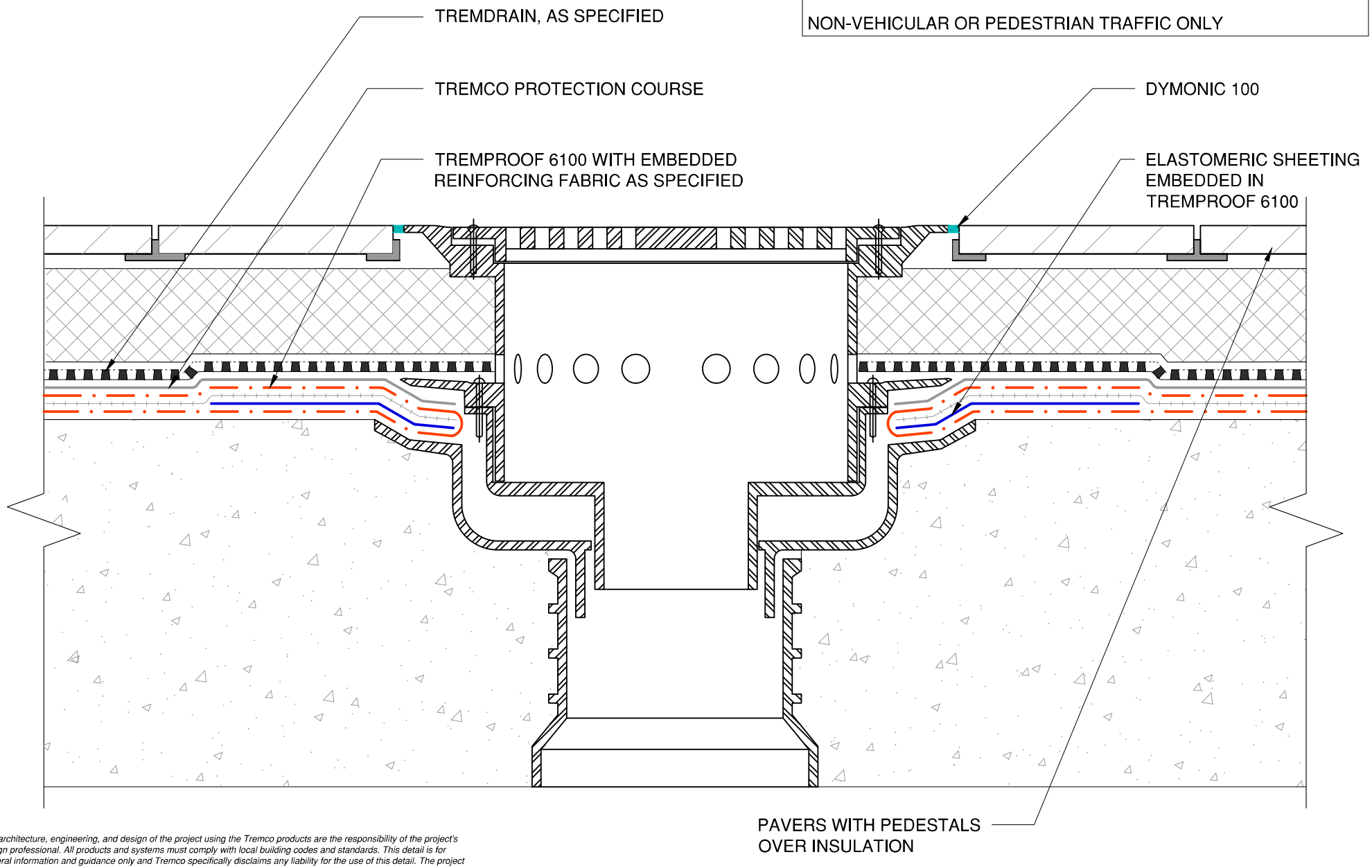
TREMCO Construction Products Group

NOTE: TREMPRIME QD OR TREMCO APPROVED PRIMER MUST BE APPLIED BEFORE THE APPLICATION OF TREMPROOF 6100

NON-VEHICULAR OR PEDESTRIAN TRAFFIC ONLY



TREMproof 6100

TREMCO

Tremco Technical Support: 866-209-2404

Detail: TREMproof 6100 at Bi-Level Drain

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KAB	WH	NTS	3/2/2022

File Name: H-D-03

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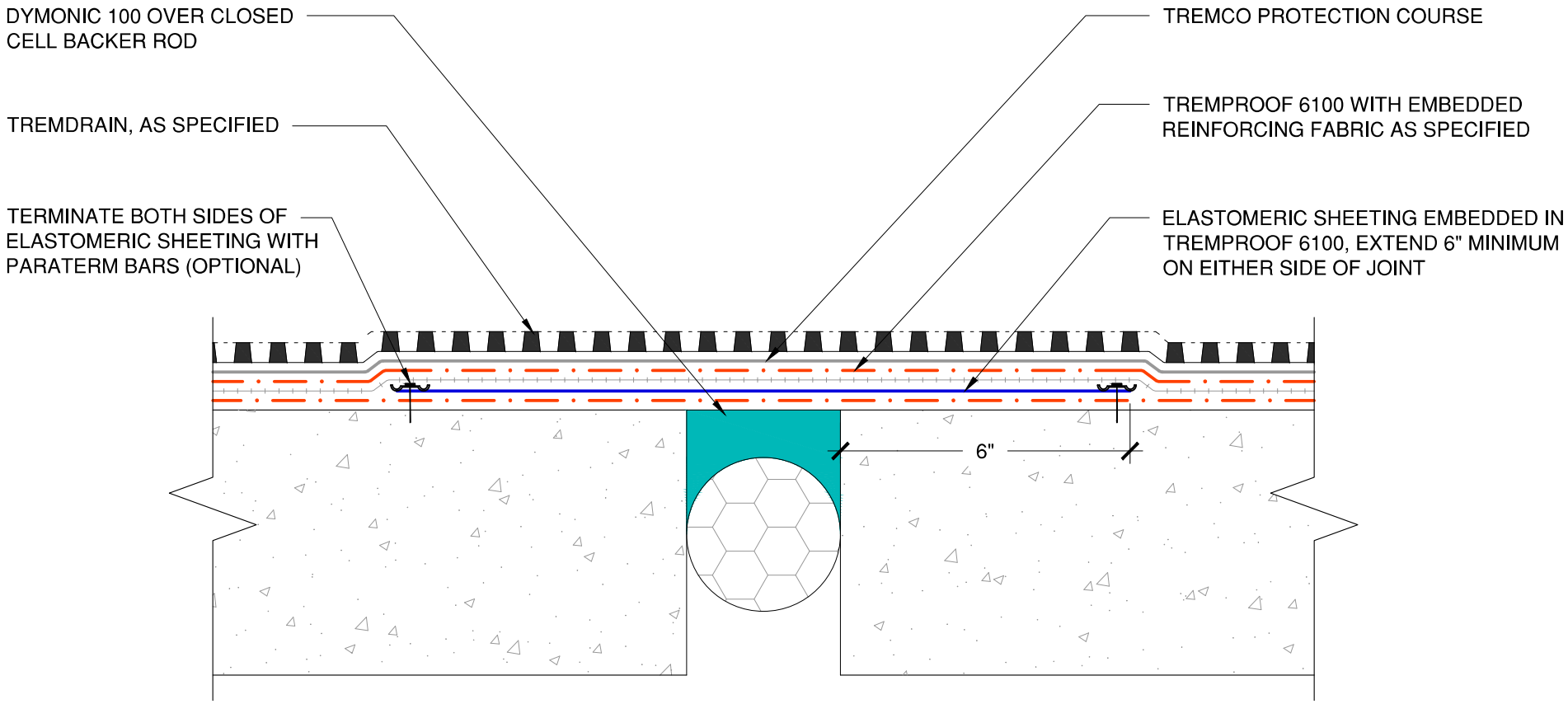

TREMproof 6100

TREMCO
Tremco Technical Support: 866-209-2404

Detail: TREMproof 6100 at Floor to Floor Expansion Joint with Sealant

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KAB	WH	NTS	3/2/2022

File Name: H-EJ-FF-01

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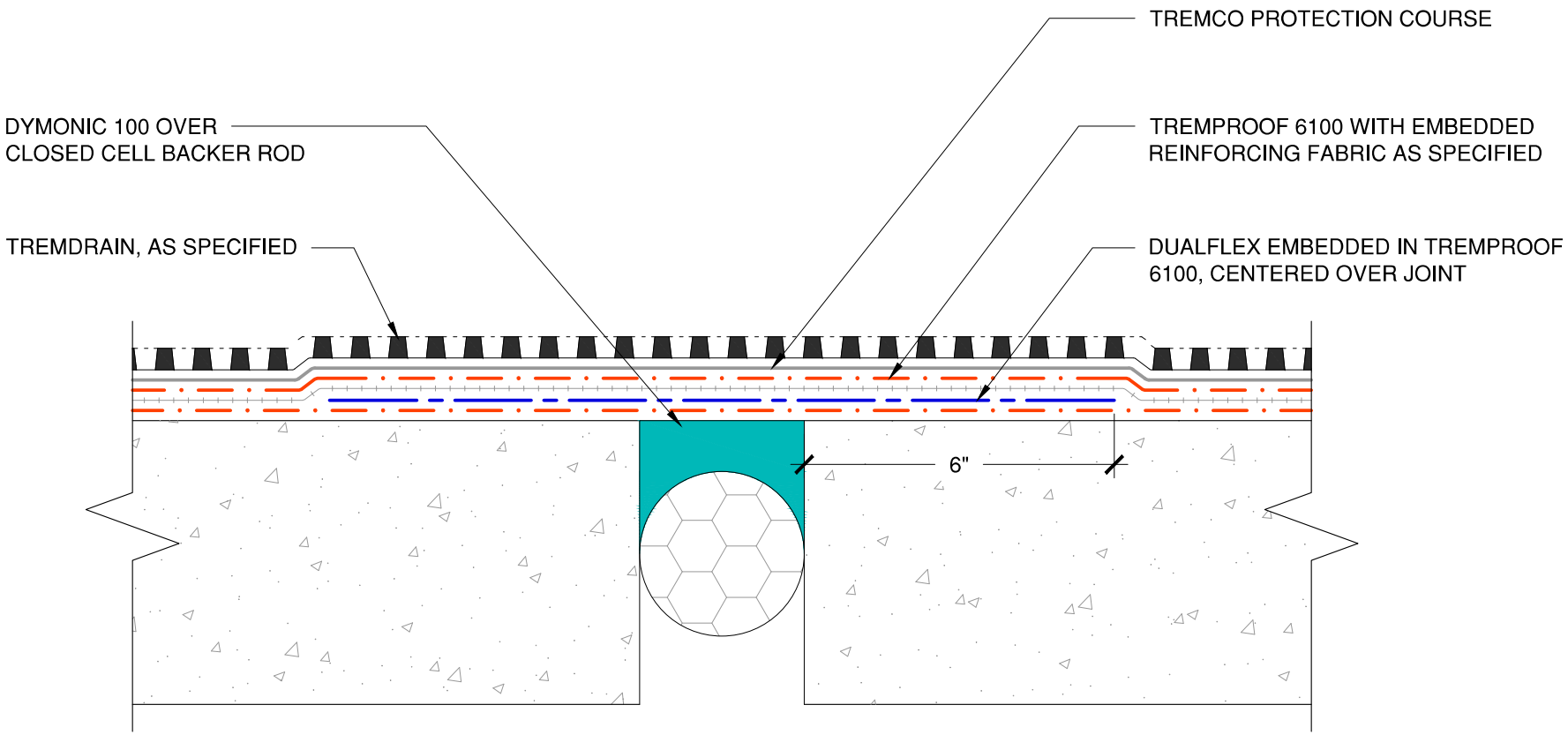
NOTE: TREMPRIME QD OR TREMCO APPROVED PRIMER MUST BE APPLIED BEFORE THE APPLICATION OF TREMPROOF 6100



TREMproof 6100

TREMCO
Tremco Technical Support: 866-209-2404

Detail: TREMproof 6100 at Floor to Floor Expansion Joint with Sealant and Dualfex

Drawn by:	Checked by:	Scale:	Date:
KAB	WH	NTS	3/2/2022

File Name: H-EJ-FF-02

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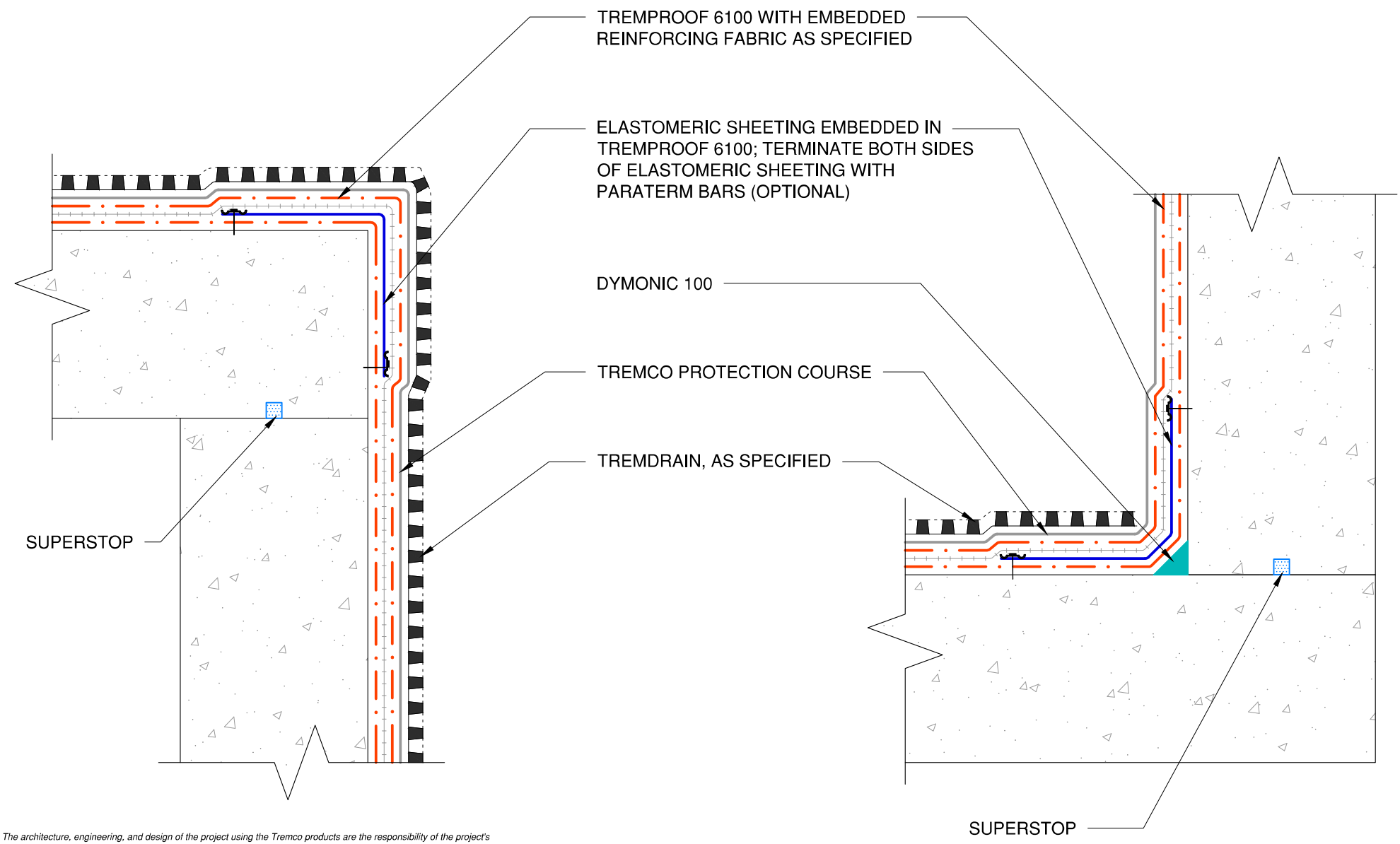
NOTE: TREMPRIME QD OR TREMCO APPROVED PRIMER MUST BE APPLIED BEFORE THE APPLICATION OF TREMPROOF 6100



TREMproof 6100

TREMCO
Tremco Technical Support: 866-209-2404

Detail: TREMproof 6100 at Downturns and Upturns with Elastomeric Sheeting

Drawn by:	Checked by:	Scale:	Date:
KAB	WH	NTS	3/2/2022

File Name: H-G-08

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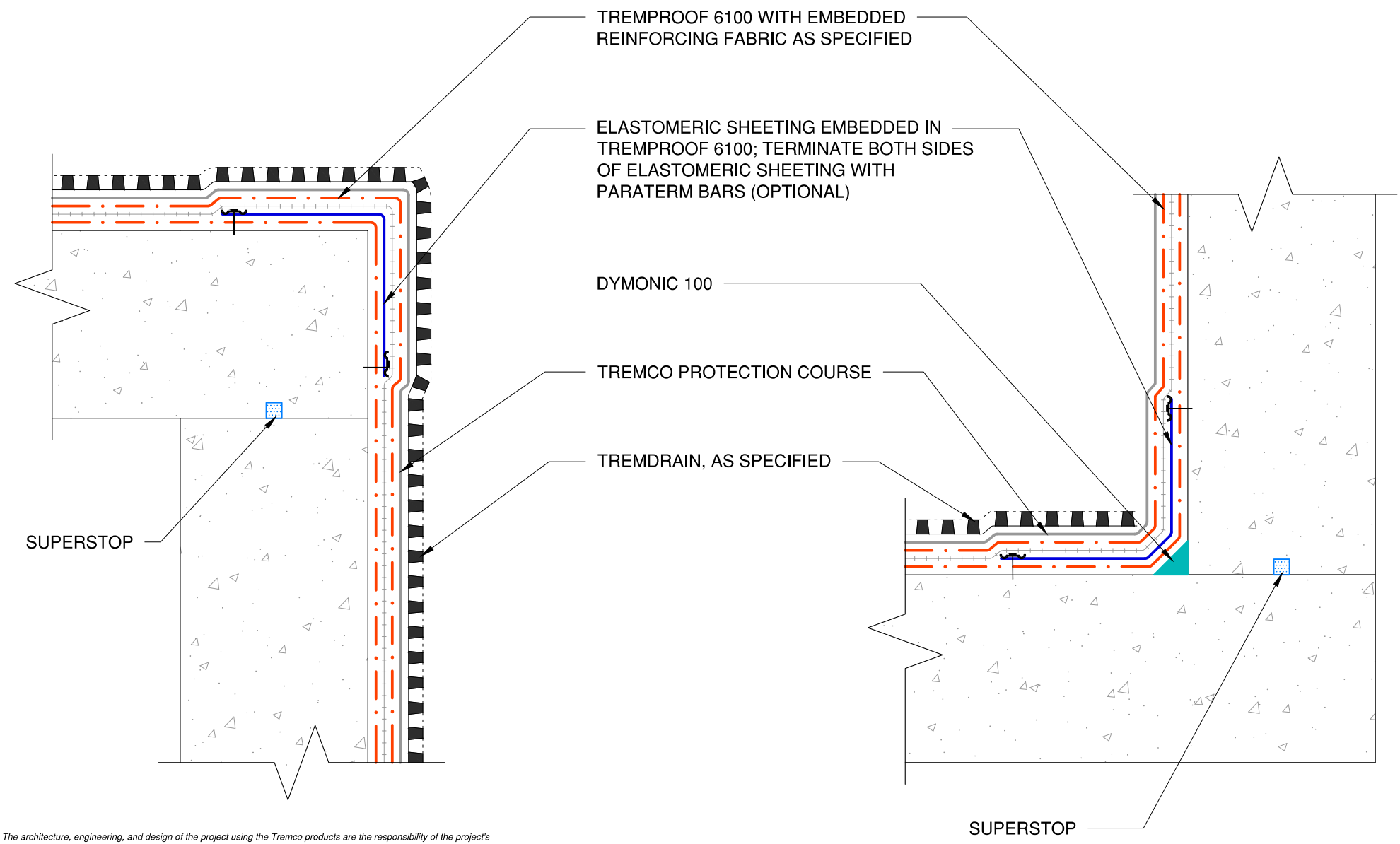
NOTE: TREMPRIME QD OR TREMCO APPROVED PRIMER MUST BE APPLIED BEFORE THE APPLICATION OF TREMPROOF 6100



TREMproof 6100

TREMCO
Tremco Technical Support: 866-209-2404

Detail: TREMproof 6100 at Downturns and Upturns with Elastomeric Sheeting

Drawn by:	Checked by:	Scale:	Date:
KAB	WH	NTS	3/2/2022

File Name: H-G-08

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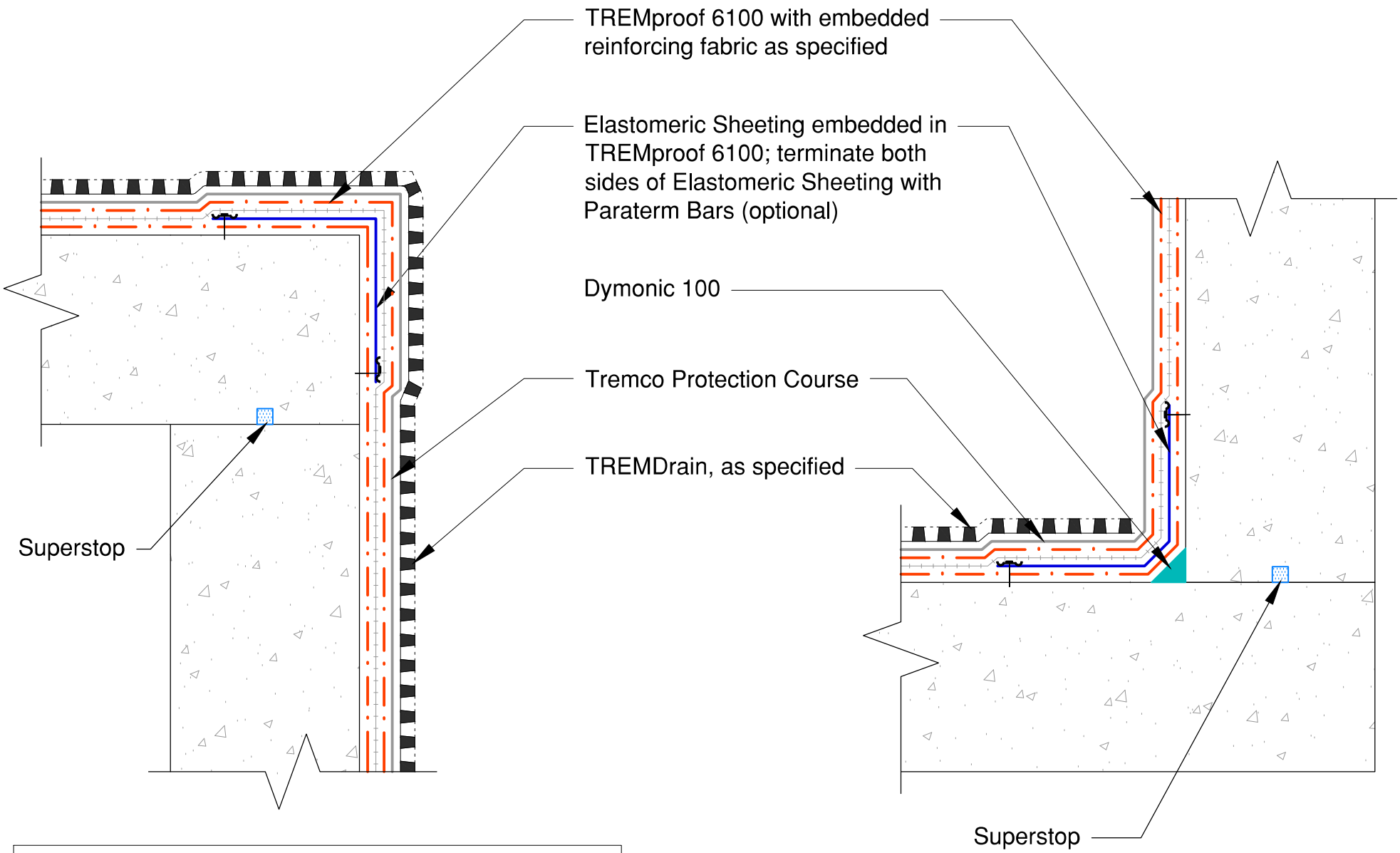


Note: TREMprime QD or Tremco approved primer must be applied before the application of TREMproof 6100

TREMCO
www.tremcosealants.com
3735 Green Road * Beachwood, OH 44122
Phone : 866-209-2404 * Fax: 216-766-5535

Project:

Detail: TREMproof 6100 at Downturns and Upturns with Elastomeric Sheeting

This detail is intended for conceptual purposes only.

Drawn by: KAB

Checked by: WH

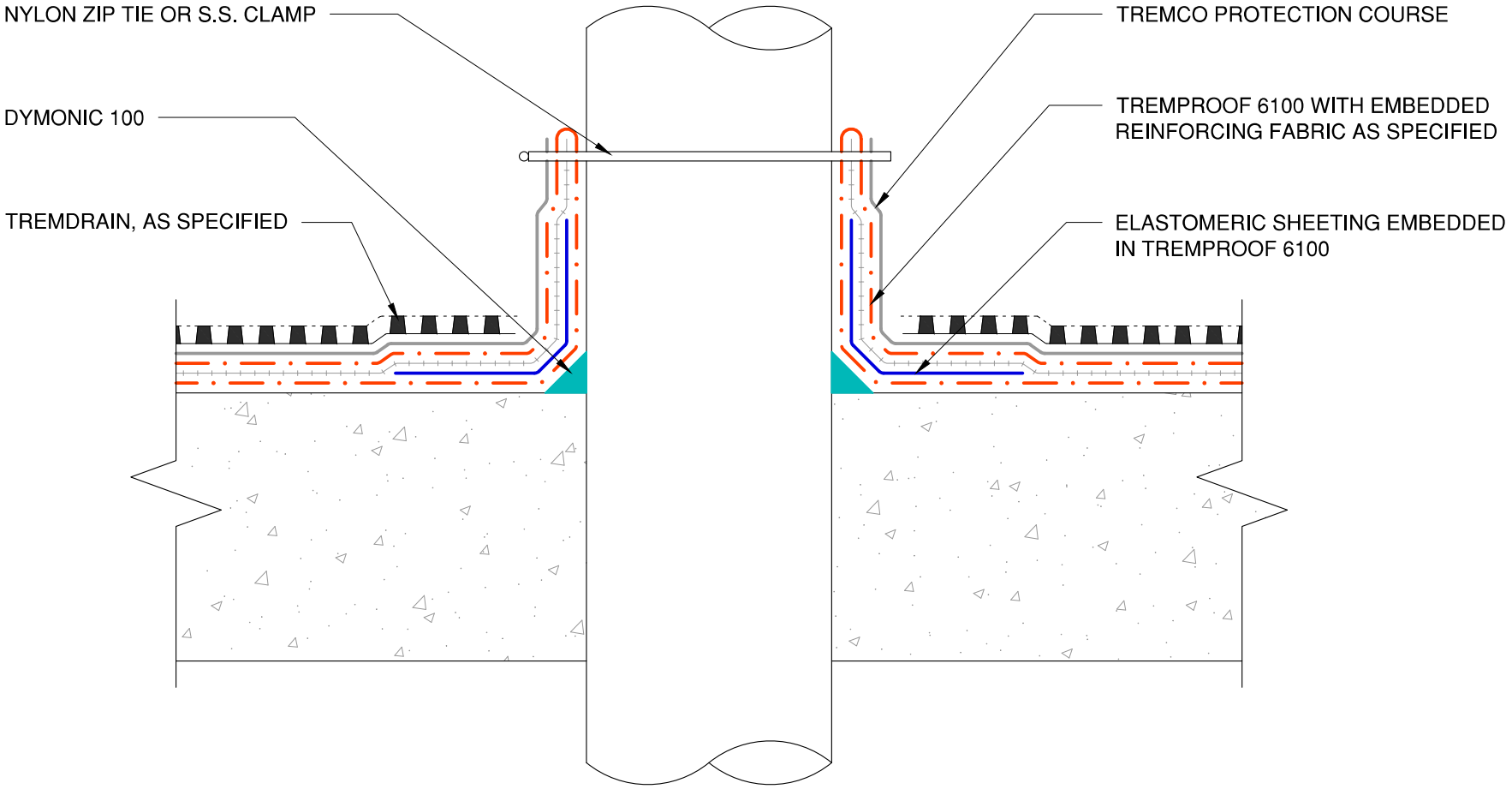
Scale: None

Sheet Number:

Date: 8/1/2018

File Name: H-G-09

NOTE: TREMPRIME QD OR TREMCO APPROVED PRIMER MUST BE APPLIED BEFORE THE APPLICATION OF TREMPROOF 6100



TREMproof 6100

TREMCO
Tremco Technical Support: 866-209-2404

Detail: TREMproof 6100 at Penetration

Drawn by:	Checked by:	Scale:	Date:
KAB	WH	NTS	3/2/2022

File Name: H-P-01

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TECHNICAL BULLETIN

No. S.17.05 | Rev. 04/15/21

TREMPROOF 6145 AND 6100 HOT RUBBERIZED ASPHALTIC MEMBRANES – COLD WEATHER APPLICATION GUIDELINES & SUBSTRATE CONDITIONS

The purpose of this Technical Bulletin is to describe the proper procedures for installing Tremco's hot rubberized asphaltic membranes in cold weather conditions.

AMBIENT & SUBSTRATE REQUIREMENTS:

- The concrete substrate must be below 4.5% surface moisture content (as measured with Tramex CME4 moisture meter)
- The concrete surface profile must be prepared in accordance with our standard application instructions (i.e. via shot blast, scarification, surface grinding, etc.), and be free of any contamination such as loose debris, dust, laitance, and/or dirt
- If ambient air and substrate temperatures drop below 32°F (0°C), surface moisture readings can be affected by frozen moisture trapped within the concrete. To determine moisture entrapment within frozen concrete, use the following test:
- Heat the frozen concrete for approximately 10 seconds via gas fired torch (or "tiger torch"). Wait for 30 seconds to allow the concrete to cool, so that it is warm to the touch, but not hot. Place a mat with a rubberized back over the torched area. Wait 10 to 20 minutes, then lift the mat and visually inspect the concrete surface. If too much moisture is present, it will appear as a damp or frozen matrix of ice on the surface of the concrete, indicating that the concrete has moisture beyond the limit required to be successfully waterproofed.

PRODUCT CONDITIONING GUIDELINES:

During freezing substrate installations, TREMproof 6100 and 6145 can be heated to a maximum of 425°F (218°C) to enhance the flow of the membrane. When heating to this temperature, the kettle's agitator must always be moving. At the end of the shift, when the burners are turned off, the agitator must run for an extra 20 to 30 minutes with the doors open prior to shut down to prevent the segregation of components within the hot rubberized asphalt.

COLD WEATHER INSTALLATION GUIDELINES:

- When installing the hot rubber onto cold substrates, the applicator must also adjust their installation speed. Cold substrates will rapidly cool the membrane, which can directly affect the ability of the reemay fabric to bond to the first layer of membrane. Because of this, it is suggested the applicator apply the first layer of membrane in shorter runs, followed immediately by the installation of Tremco's reemay. "The colder the deck, the shorter the run of membrane" is the general rule of thumb. The applicator must assure that adequate "bleed through" is achieved when installing the reemay and should adjust their speed of installation to accommodate this.
- When rapid cooling of the product occurs due to cold substrate temperatures, it may be too difficult to achieve the specified thicknesses; in these instances, the job should be postponed until warmer weather is present, or until alternative measures can be taken to heat the substrate.
- In conditions where neoprene sheet is specified for detail work in cold weather, priming can be accomplished by applying TREMprime HR with a rag wipe on the backside of the sheet that faces the first lift of HRA. TREMprime HR dries more rapidly on the sheet than on the concrete. The primer should be applied to produce a thin translucent film on the neoprene sheet. Allow the primer to dry fully before installation.
- Temperature of the substrate is not the only critical component in determining the feasibility of membrane installation. As such, ongoing qualitative inspections should be completed during the installation of the membrane to ensure optimal material temperature, proper installation thicknesses, and positive adhesion to the primed substrate.

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220 Wicksteed Ave
Toronto ON M4H1G7
416.421.3300 / 800.363.3213

1350 Gay-Lussac, Unit: 3
Boucherville QC J4B 7G4
514.521.9555

TREMCO
Construction Products Group

BUILDING ENVELOPE
WARRANTY

Comprehensive Protection for Your Building Envelope

WARRANTY NUMBER: [Project Number]-[Warranty Number]

PROJECT NAME & ADDRESS:		**CONSTRUCTION MANAGER:**	
OWNER:		**GENERAL CONTRACTOR:**	
ARCHITECT/ ENGINEER:		**AGGREGATE MATERIAL PURCHASE VALUE:**	
ISSUER (THE "COMPANY"):	[List all manufacturers/ sellers of Products listed in the Exhibit. For example, Tremco Incorporated, Dryvit Systems, Inc., The Euclid Chemical Company, etc.]	**DATE OF PROJECT SUBSTANTIAL COMPLETION:**	

WHAT IS WARRANTED AND WHAT WILL THE COMPANY DO?

Subject to the terms, conditions, and limitations stated in this warranty, the products (the "Products") will be free from manufacturing defect at the time of purchase, will remain in a watertight condition and will perform as warranted in the manner specified for the stated term(s) measured from the Date of Project Substantial Completion, all as outlined on the attached Exhibit. The Exhibit is an integral part of this warranty.

THE COMPANY WILL SUPPLY LABOR AND MATERIALS TO REPAIR OR REPLACE ANY PRODUCTS THAT DO NOT PERFORM AS WARRANTED HEREUNDER.

The Company will determine in its sole discretion the appropriate scope and method of repair or replacement to remedy any condition covered by this warranty.

The total liability of the Company over the life of this warranty shall not in any event exceed the aggregate dollar value of the original cost of the Products specified in the attached Exhibit.

The term of this warranty may be extended for an additional 2 years with involvement on the project of a Company-approved, third-party consultant ("Consultant") engaged by the Owner or its authorized representative, at the Owner's sole expense. Inspection reports generated by the Consultant shall be made available to the Company and the Owner. All deficiencies identified by the Consultant in the inspection reports must be addressed and corrected in accordance with the project specifications, good waterproofing practices generally accepted in the industry, and the Company's published application instructions. Written confirmation that all deficiencies have been addressed and corrected must be provided by the Consultant and Applicator to the Company and the Owner. Actions taken to resolve all deficiencies identified shall be specifically noted in the written confirmation.

HOW DO I GET SERVICE?

The Owner must notify the Company within 30 calendar days from the date that the Owner discovered, or should have discovered, the existence of a claim under this warranty, and before beginning any permanent repair, by submitting a service request form at https://warranties.tremcocpg.com or by emailing the Warranty Administrator at **warrantyadmin@tremcoinc.com**. Emailed notice must include the warranty number and a written description of the location, scope, and nature of the alleged failure of the Products to perform as warranted. Photographs or videos of the damaged area are often useful and should also be submitted if available.

The Owner must provide the Company with a reasonable opportunity to investigate the claim and the alleged failure of the Products to perform as warranted herein. The Owner shall have the sole responsibility, at the Owner's cost and expense, to provide the Company with free and full access to the installed Products during regular business hours for purposes of the investigation, including obtaining necessary approval and/or releases from building occupants who may be affected by the investigation and/or by any remedy the Company may provide under this warranty. The Company shall not be responsible for removal of any materials which may cover the Products, or any costs associated with removing or replacing any such materials.

GENERAL REQUIREMENTS:

There will not be any coverage under this warranty unless all the following apply:

- The Products were installed in strict compliance with the project specifications, good waterproofing practices generally accepted in the industry, the Company's published application instructions and technical literature, and any additional written requirements provided by the Company.
- The installation was performed by an Applicator who has received appropriate training prior to installing the Products.
- A pre-construction meeting was conducted with representatives of the Company, the Applicator, the Owner, and the Consultant (if applicable) prior to installation of the Products.
- The Products are used with compatible materials and substrates (in compliance with the Company's published application instructions/technical literature or as otherwise approved in writing by the Company).
- The Products are applied within their stated shelf life.
- The Products are used in applications approved by the Company as suitable.
- The Products are applied to a sound, properly prepared substrate in accordance with published application instructions.
- Request for Issuance of the warranty must be made within 12 months following the "Installation Completion Date " of the Tremco Product (s)
    - The Installation Date of Material(s) by Exhibit will serve as the Project Substantial Completion Date for Warranties filed over 24-months after the date of the installation of the materials.

LIMITATIONS AND EXCLUSIONS:

The Company shall not be responsible for, and this limited warranty does not cover, any loss resulting from any of the following:

- The use of other manufacturers' products unless such products are specifically recommended or approved by the Company in writing in advance of their installation, in connection with the use of the Products.
- Any repairs, replacements, penetrations, or alterations of the Products by any person or entity other than authorized representatives of the Company without prior written consent of the Company.
- Water passing through any portion of a structure or building component other than directly through the Products due to a failure in the Products and/or connections between the Products (so long as the connections are Company Products), or any interior moisture, vapor, or condensation.
- Construction, design, specification, storage, application, exposure, installation practices, use of the Products, or use of material, that is not in compliance with the Company's published literature.
- Unauthorized changes in the Products' details or specifications for the project that were not reviewed and approved in advance by the Company in writing.
- Failure to maintain the building and the Products with reasonable care.
- Mold, mildew, insects, pests, fungi, algae, bacteria, air quality, and similar conditions.
- Improper design, engineering, application installation or workmanship of any portion or component of the Products or the structure; or failure, distortion or structural movement of the walls, foundation, or any other portion or component of the structure, including, but not limited to, movement, cracking, deflection, settling of the building or movement of the framing members.
- Impact with objects, hurricanes, tropical storms, tornadoes, high winds, hailstorms, earthquakes, sandstorms, floods, natural disasters, fires, vandalism, war, terrorism, animals, other similar acts of God or nature, force majeure events, or significant or unintended immersion or pooling of water.
- Abuse, misuse, neglect, damage, or negligence by the Owner, the Applicator, the general contractor, or other trades performing work on the project, or any third party.
- Change in principal usage or amount of usage of structure without prior written approval of the Company.
- Intermixing of the Products with other chemicals or materials not specifically required by the Company's specifications or application instructions.

If, at the Owner's request, the Company performs any services or supplies any materials as a mitigation or remediation measure in connection with any unwarranted loss described above, the Company shall be entitled to compensation for such services or materials.

The Company makes no warranty with respect to appearance or color. No representative of the Company has the authority to make any representations, warranties, or promises except as stated herein.

No waiver by the Company of any limitation, term or condition of this warranty shall operate as a waiver of any other limitation, term or condition applicable to any claim, whether of like or different nature. No delay or failure on the Company's part to enforce any right or claim, which it may have hereunder, shall constitute a waiver of such right or claim.

If any part of this warranty shall be determined to be invalid, then such portion shall be deemed severed from the warranty and the remaining terms, exclusions and limitations shall apply.

The Company's obligations under this warranty are expressly conditioned upon receipt of full payment for the Products. Any delay in full payment to the Company shall not extend the warranty term.

This warranty is issued to the above-named Owner and is not assignable or transferable, except upon the express written consent of the Company.

THE COMPANY UNDERTAKES NO RESPONSIBILITY FOR THE QUALITY OF THE PRODUCTS EXCEPT AS PROVIDED IN THIS LIMITED WARRANTY. **IN OTHER WORDS, THE COMPANY EXPRESSLY DISCLAIMS ALL EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY.**

THE COMPANY ASSUMES NO RESPONSIBILITY THAT THE PRODUCTS WILL BE FIT FOR ANY PARTICULAR PURPOSE FOR WHICH THE PRODUCTS MAY BE PURCHASED, EXCEPT AS PROVIDED IN THIS LIMITED WARRANTY. **IN OTHER WORDS, THE COMPANY EXPRESSLY DISCLAIMS ALL EXPRESS OR IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE.**

THE COMPANY MAKES NO OTHER OR FURTHER WARRANTIES IN CONNECTION WITH THE PRODUCTS EXCEPT AS EXPRESSLY STATED IN THIS WARRANTY DOCUMENT.

THE COMPANY WILL NOT BE RESPONSIBLE UNDER THIS LIMITED WARRANTY FOR ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER ARISING IN CONTRACT OR TORT (INCLUDING INTENTIONAL,

NEGLIGENCE OR OTHERWISE), FOR BREACH OF WARRANTY OR UNDER ANY OTHER THEORY OF LIABILITY, WHETHER OR NOT ARISING FROM OR RELATING TO, DIRECTLY OR INDIRECTLY, THIS WARRANTY, OR THE PERFORMANCE OF, DEFECTS IN, OR IN ANY WAY CONNECTED WITH, THE PRODUCTS COVERED BY THIS WARRANTY. THE COMPANY WILL HAVE NO LIABILITY FOR, AND EXPRESSLY DISCLAIMS LIABILITY FOR, ANY OTHER DAMAGE TO THE BUILDING OR THE CONTENTS OF THE BUILDING AND FOR ANY OTHER CLAIMED DAMAGES, LOSSES, COSTS AND EXPENSES OTHER THAN AS EXPRESSLY SET FORTH IN THIS WARRANTY.

THIS REMEDY EXPRESSLY SET OUT IN THIS WARRANTY WILL BE THE EXCLUSIVE REMEDY FOR ALL PERSONS ENTITLED TO WARRANTY COVERAGE AS DESCRIBED ABOVE. NO OTHER REMEDY SHALL BE APPLICABLE.

SOME JURISDICTIONS LIMIT OR DO NOT ALLOW THE DISCLAIMER OF CERTAIN REMEDIES OR THE EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES. THE EXCLUSIONS AND LIMITATIONS OF REMEDIES AND DAMAGES IN THIS SECTION FULLY APPLY TO THE EXTENT NOT PROHIBITED BY APPLICABLE LAW.

The terms of this warranty may not be altered, modified, or supplemented except in a writing signed by an officer of the Company that expressly refers to this warranty document and number.

In the event the Owner: (i) fails to provide the Company with timely notice as described above, (ii) fails to provide required access to the installed Products, (iii) undertakes or permits any actions that cause or contribute to failures, such as unauthorized repairs or perforations of the Products, or (iv) otherwise fails to fulfill its responsibilities as described herein, the Company reserves the right to void this warranty upon written notice to the Owner.

To expedite processing, this document may be completed and delivered in electronic form only. This limited warranty applies only to Products installed in the United States and Canada. Under the Quebec Consumer Protection Act, the Company must provide a warranty to consumers, as defined in the Act, that the Company's products shall be fit for the purpose for which such products of that kind are ordinarily used and that the Products must be durable in normal use for a reasonable length of time, having regard to their price and other factors. For more information about your rights if you are a consumer as defined in the Act, you should consult the Quebec Consumer Protection Act at https://www.educaloi.qc.ca/en/capsules/legal-warranty-automatic-protection-consumers.

Since the Products are building materials and are not intended to be sold to a "consumer" except as part of real estate or as a major addition thereto, this warranty shall not apply to any party constituting a "consumer" as such term is defined by the Magnuson-Moss Warranty Act.

EXHIBIT

Subject to the terms, conditions, and limitations stated in this warranty, the Company warrants to the Owner:

Warranty No.: [Project Number]-[Warranty Number]

Hot Fluid Applied Asphalt Waterproofing Applications (Common Applications: Split slab, pedestrian pavers, vehicular pavers, planters, vegetative roofs without warranted growing medium, unexposed top-level parking areas)

That the Product(s) 1) will not crack due to normal exposure or normal expansion or contraction, and 2) will not fail cohesively or adhesively under conditions of normal wear and tear where movement and/or cracking of the underlying substrate does not exceed 1/16 of an inch, for the period stated in the table below from the Date of Project Substantial Completion.

The Company's obligations and Owner's rights shall be void if the system is ruptured, cracked or otherwise damaged by any misuse or abnormal use or conditions, including but not limited to, building alterations or structural defects, surface scaling or spalling of underlying concrete or substrates or any cause other than defects in the system as manufactured and supplied.

Additional Requirements for Warranty Coverage

Tremco's Dymonic® 100 required as detail sealant. Tremco Reinforcing Fabric required for all applications. Tremco HDPE-20 requires Permanent Seam Tape at overlapped seams. Tremco Epoxy Primer with broadcast aggregate required for all tie-ins. Tremco PUMA Flashing (PUMA technology) is an acceptable flashing alternate to traditional means. Tremco approved horizontal, non-permanent pavers required for paver systems.

Paver Systems Exclusions

This warranty does not cover leaks caused in whole or in part by excessive traffic, storage of material, and/or misuse of the structure, including damage caused by installation of a sprinkler system, water or air conditioning equipment, radio or television antenna, framework for signs, water tower or other similar installations after installation of the system without the prior written consent of Tremco

Warranty Issued

Applicator:		Installation Completion Date:	
Consultant (if applicable):		Warranty Term:	
Product:		Linear/Square Footage:	
Product:		Linear/Square Footage:	

Tremco Incorporated
3735 Green Road Beachwood, OH 44122 216.292.5000 www.tremcosealants.com

TREMCO®
Commercial Sealants & Waterproofing

Tremco Incorporated certifies that POWERPly Standard Smooth sheets meet the physical properties outlined in the Tremco Incorporated published data sheets, specifications, and application instructions. This product exhibits the typical physical properties as shown herein:

POWERPly® Standard Smooth

Standard Smooth

TYPICAL PHYSICAL PROPERTIES

PROPERTY	VALUES US	VALUES SI
Composition	SBS Bitumen Modified	
Thickness	80 mils (2 mm)	2 mm
Puncture Resistance	70 lb	
Weight	105 lb /roll	47.6 kg/roll
Dimension	3' x 56' 8" / roll, 170 ft² / roll	0.91 M x 17.3 M/roll, 15.7 M²/roll

Tremco Commercial Sealants & Waterproofing
3735 Green Road
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www.tremcosealants.com

September 30, 2020

To Whom It May Concern:

RE: POWERply Standard Smooth—Green Building Product Information (LEED v4.1 Information)

Tremco Incorporated is an organization that is committed to quality, our employees, and our environment. We are responsive to both internal and external customers, and we pledge to treat everyone with good stewardship and respect.

Tremco Incorporated certifies the following for POWERply Standard Smooth:

Building Product Disclosure and Optimization:

POWERply Standard Smooth is manufactured in Cleveland, Ohio.

No single extracted material is used to produce the majority of this product.

Recycled content for POWERply Standard Smooth is not available, and for the purposes of LEED reporting should be assumed to be zero.

Low Emitting Materials - VOC Content Information:

POWERply Standard Smooth is an exterior applied bitumen sheet with a VOC content of <1g/L equaling <1% as applied/mixed. As such, VOC levels are lower than the limits set by SCAQMD rule 1113.

Green Chemistry:

Tremco Incorporated is dedicated to the environment and prides itself on making its products as sustainable as possible.

Manufacture Inventory (reported to 1000ppm):

Material description	CAS number	Amount	GHS Hazard
Calcium Carbonate (Limestone)	1317-65-3		
Asphalt	8052-42-4		
Crystalline Silica (Quartz)/ Silica Sand	14808-60-7		
Magnesite	546-93-0		
Polymer Resin		<5%	Non-Hazardous
Fibrous Glass	65997-17-3		
Solvent		<1%	Non-Hazardous

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Additional Information:

Should you have any questions or require additional information, please do not hesitate to contact Technical Services or your local Tremco Field Representative.

Sincerely,

Joe Kravetz

Product Steward

Compliance and Regulatory Affairs

TREMDrain® 1000/1000 PF

Multi-Composite Drainage and Protection Boards

Product Description

TREMDrain® 1000 consists of a polystyrene core and nonwoven, needle-punched, polypropylene fabric. Available with or without the polymeric film (PF) attached to the back of the drainage core, it offers greater compressive strength than TREMDrain.

Basic Uses

The TREMDrain Series of mats are used with TREMproof® and Paraseal® waterproofing membranes serving both as a protection course and replacement for traditional pipe and stone drainage systems.

Features and Benefits

- TREMDrain Series Drainage and Protection Boards replace or eliminate the need for a separate protection course.
- Provide an uninterrupted flow plane and eliminate the opportunity for hydrostatic pressure to form against a wall.
- Lightweight and easy to install compared to conventional pipe and stone drainage.

Availability

Immediately available from your local Tremco Sales Representative, Tremco Distributor or Tremco Warehouse.

Packaging

4' x 50' (1.22 M x 15.8 M)

Storage

Store out of direct sunlight. Vertical storage recommended.

Limitations

- Not for use beneath sand-set vehicular pavers.
- Not to be used as an exposed or wearing surface. Limit UV exposure to a maximum of 14 days.

Installation

Refer to TREMDrain Series Application Instructions for specific application details. The techniques included may require modification to adjust to job-site conditions. Consult your local Tremco Sales Representative or Tremco Technical Service for specific design requirements.

Warranty

Tremco warrants its Products to be free of defects in materials, but makes no warranty as to appearance or color. Since methods of application and on-site conditions are beyond our control and can affect performance, Tremco makes no other warranty, expressed or implied, including warranties of MERCHANTABILITY and FITNESS FOR A PARTICULAR PURPOSE, with respect to Tremco Products. Tremco's sole obligation shall be, at its option, to replace or to refund the purchase price of the quantity of Tremco Product proven to be defective, and Tremco shall not be liable for any loss or damage.

Please refer to our website at www.tremcosealants.com for the most up-to-date Product Data Sheets.

NOTE: All Tremco Safety Data Sheets (SDS) are in alignment with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) requirements.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	VALUES US	VALUES SI
Typical Applications		Backfilled Wall, Under Slab	
Roll Length		50 ft	15.24 M
Roll Width		4 ft	1.22 M
Roll Weight		38 lb	17.2 kg
Recycled Content		>70%	
Fabric			
Material		Nonwoven Needle-punched Polypropylene	
Grab Tensile Strength	ASTM D4632	100 lbf	445 N
CBR Puncture	ASTM D6241	275 lb	1220 N
UV Resistance	ASTM D4355	70% / 500 hrs	
Grab Elongation	ASTM D4632	65%	
AOS	ASTM D4751	70 sieve	210 micron
Permittivity	ASTM D4491	2.4 sec^{-1}	
Flow Rate	ASTM D4491	165 gpm/ft^2	6,732 Lpm/M^2
Root Barrier Fabric		None	
Core			
Material		Polystyrene	
Flow Capacity per unit width	ASTM D4716	18 gpm/ft	224 Lpm/M
Thickness	ASTM D1777	7/16" 11 mm	
Compressive Strength	ASTM D1621 ASTM D6364	15,000 lb/ft^2 15,000 lb/ft^2	718 kPa 718 kPa

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September 30, 2020

To Whom It May Concern:

RE: TREMDrain 1000—Green Building Product Information (LEED v4.1 Information)

Tremco Incorporated is an organization that is committed to quality, our employees, and our environment. We are responsive to both internal and external customers, and we pledge to treat everyone with good stewardship and respect.

Tremco Incorporated certifies the following for TREMDrain 1000:

Building Product Disclosure and Optimization:

TREMDrain 1000 is manufactured in Monroe, North Carolina, and Carson City, Nevada.

No single extracted material is used to produce the majority of this product.

Recycled content for TREMDrain 1000 is 70% (Post-Industrial). Because this product is partially created with recycled content, consumers are able to work towards one Building Product Disclosure and Optimization-Raw Materials Extraction point.

Low Emitting Materials - VOC Content Information:

TREMDrain 1000 is an exterior applied drainage product with a VOC content of <1g/L equaling <1% as applied/mixed. As such, VOC levels are lower than the limits set by SCAQMD rule 1113.

Green Chemistry:

Tremco Incorporated is dedicated to the environment and prides itself on making its products as sustainable as possible. We are pleased to report that this product is produced without any Red List chemicals. As such, it can be used to assist in finishing projects aimed towards achieving a Living Building Challenge certification.

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Manufacture Inventory (reported to 1000ppm):

Chemical Name or Role	CAS Number	Amount	GHS Hazard
High Impact Polystyrene blend compound, consisting of:		83%	Non-Hazardous
Polystyrene	9003-55-6		
Modified Polystyrene	9003-53-8		
Styrene-Butadiene Copolymer	9003-53-8		
Carbon Black	1333-86-4		
Polypropylene	9003-07-0	14%	Non-Hazardous
Adhesive		3%	Non-Hazardous

Additional Information:

TremDrain products are an excellent way to gather and redirect rainwater for reuse in non-potable applications, which can help contribute to water conservation efforts and points for water use reduction in LEED. Should you have any questions or require additional information, please do not hesitate to contact Technical Services or your local Tremco Field Representative.

Sincerely,

Joe Kravetz

Product Steward

Compliance and Regulatory Affairs

TREMCO

TECHNICAL DATA SHEET

Elastomeric Sheeting

Uncured Neoprene Sheeting

PRODUCT DESCRIPTION

Tremco® Elastomeric Sheeting is a thermoset material made of the highest quality uncured neoprene rubber at a thickness of 60 mils (1.52 mm).

BASIC USES

Tremco Elastomeric Sheeting is designed to provide a durable, flexible, tear-resistant bridge in areas of high movement such as expansion joints, construction joints, and flashing where a membrane waterproofing such as TREMproof® 6100, TREMproof 201/60, or TREMproof 250GC is being used.

AVAILABILITY

Immediately available from your local Tremco Sales Representative or Tremco Distributor. For Distributor locations, visit www.tremcosealants.com.

PACKAGING

6' x 100' (151 mm x 30.6 M)
12' x 100' (300 mm x 30.6 M)
18' x 100' (450 mm x 30.6 M)
24' x 100' (604 mm x 30.6 M)
36' x 100' (906 mm x 30.6 M)

INSTALLATION

Rout out any construction joint filler to a depth of 1/2" (12.7 mm) and install open-cell polyurethane backer rod such that is protrudes to a height of 1/2" (12.7 mm), minimum.

Bond Tremco Elastomeric Sheeting a minimum 3" (10.2 cm) to either side of joint using TREMproof 6100, TREMproof 201/60, or TREMproof 250GC. Tremco Elastomeric Sheeting must be looped to a height/depth equal to the total anticipated movement. Overlap adjacent sheeting a minimum of 6" (15.3 cm).

LIMITATIONS

- Not for use as a primary waterproofing membrane.

WARRANTY

A repair or replacement warranty is available on all Tremco products. Visit https://www.tremcosealants.com/warranties/ for details.

TYPICAL PHYSICAL PROPERTIES		
PROPERTY	TEST METHOD	TYPICAL RESULTS
Thickness (inches)	ASTM D412	Gauge +/- 10%
Width (inches)	ASTM D751	Size +/- 1/8", -0
Length (feet)	ASTM D751	Size +/- 1', -0
Tensile Strength	ASTM D412 DIE C	1340
Elongation	ASTM D412 DIE C	400
Modulus, 100% Min %	ASTM D412 DIE C	24 to 75%
Tear Resistance lb/in min	ASTM D624 DIE C	125
Brittleness Point at -40 °F	ASTM D2137	Does not break
Ozone Resistance 168 hr/100pphm/104 °F/50% EXT	ASTM D1149	No cracks at 7x
Water Absorption, Maximum Mass % 166 hr at 158 °F	ASTM D471	+8.5

Please refer to our website at www.tremcosealants.com for the most up-to-date Product Data Sheets.

NOTE: All Tremco Safety Data Sheets (SDS) are in alignment with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) requirements.

ELASTSHTDS/1122

Tremco® Reemay

Reinforcing Fabric 2011

Product Description

A spun-bonded polyester fabric style 2011, consisting of a nonwoven fabric of continuous filament polyester fibers that are randomly arranged. These fibers are highly dispersed and bonded at the filament junctions.

Basic Uses

Tremco® Reinforcing Fabric is used to reinforce hot fluid-applied membranes in multi-lift applications.

Availability

Immediately available from your local Tremco Sales Representative or Tremco Distributor. For Distributor locations visit www.tremcosealants.com.

Packaging

84 in. x 675 ft. (2.13m x 205.74 m) roll

36 in. x 600 ft. (0.91m x 183m) roll

12 in. x 600 ft. (30cm x 183m) roll

Warranty

Tremco warrants its Products to be free of defects in materials, but makes no warranty as to appearance or color. Since methods of application and on-site conditions are beyond our control and can affect performance, Tremco makes no other warranty, expressed or implied, including warranties of MERCHANTABILITY and FITNESS FOR A PARTICULAR PURPOSE, with respect to Tremco Products. Tremco's sole obligation shall be, at its option, to replace or to refund the purchase price of the quantity of Tremco Product proven to be defective, and Tremco shall not be liable for any loss or damage.

Please refer to our website at www.tremcosealants.com for the most up-to-date Product Data Sheets.

NOTE: All Tremco Safety Data Sheets (SDS) are in alignment with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) requirements.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	TYPICAL VALUES
Color		White
Weight	ASTM D3776	0.75 oz/y2 (25 gsm)
Thickness (Mil)	ASTM D1777	8.0 mil (0.20 mm)
Sheet Grab Tensile (lb - MD x XD)	ASTM D4632	15.4 lbs x 11.2 lbs (69 x 50 N)
Trapezoid Tear (lb - MD x XD)	ASTM D1117	4.9 lbs x 5.8 lbs (21.8 x 25.8 N)

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TREMCO

TECHNICAL DATA SHEET

PRIMER SELECTION & USAGE GUIDE

Primer Selection by Application

PRODUCT DESCRIPTION

Porous Surface Primers

Vulkem® Primer #171 – Urethane sealants, deck coatings, and TREMproof® membranes (Not for use in Canada)

Vulkem 191 Primer- Urethane sealants, deck coatings and TREMproof membranes

TREMprime® Silicone Porous Primer – Silicone sealants

TREMprime Multi-Surface Urethane Primer – Urethane coatings

TREMprime VB Primer – Vulkem coatings, urethane and PUMA technology

Non-Porous Surface Primers

TREMprime Silicone Metal Primer – Silicone sealants

TREMprime Non-Porous Primer – Urethane sealants, coatings and TREMproof membranes

Urethane Tie-Ins

Vulkem 191 Primer – Urethane sealants, coatings and TREMproof membranes

TREMprime Multi-Surface Urethane Primer – Urethane coatings

Tremco Epoxy Primer – Below-grade waterproofing and urethane deck coatings to air barrier systems

Hot Applied Membrane Specific Primers

TREMprime WB

TREMprime QD Low-Odor Primer

Self-Adhered Air Barrier Membrane Primer

ExoAir Primer

General Application Guidelines

Detailed instructions specific to each primer are listed below.

Tremco Silicone Metal Primer

Usage: Non-porous surfaces, silicone sealants. A one-component primer used to enhance adhesion of silicone sealants on non-porous surfaces such as metals and plastics. Tremco Silicone Metal Primer is also approved for Structural Glazing applications. Apply with a clean cloth. Remove all excess primer from cloth to ensure a very thin layer is applied. Dry time is 15 min at 70 °F (21 ˚C). Primer must be completely dry before applying sealant. Silicone sealants can be applied up to 6 hr after primer has been applied. After 6 hr, the surface must be cleaned with IPA and reprimed with Tremco Silicone Metal Primer.

Coverage Rate: 1400 to 1800 ft²/gal

Packaging: 1-pt (473-mL) can

TREMprime WB

Usage: Porous and non-porous surfaces, TREMproof 6100 and 6100BM High-solids, water-based primer for use in preparing porous and non-porous surfaces for application of TREMproof 6100, 6100BM and 6145. Apply with roller or airless spray equipment.

Coverage Rate: Concrete: 150 to 300 ft²/gal; Metal: 300 to 350 ft²/gal

Packaging: 5-gal (18.9- L) pails

TREMprime Silicone Porous Primer

Usage: Porous surfaces, silicone sealants. One-component primer used to enhance adhesion of silicone sealant to porous surfaces such as concrete and limestone. Apply generously with a clean cloth. Dry time is 30 to 45 min at 70 °F (21˚C). Primer must be completely dry before applying sealant. Silicone sealants can be applied up to 8 hr after primer has been applied. After 8 hr, the surface must be cleaned with IPA and reprimed with TREMprime Silicone Porous Primer.

Coverage Rate: 500 to 600 ft²/gal.; 9600 ft/gal (1/2" wide band)

Packaging: 1-pt (473-mL) can

TREMprime Non-Porous Primer

Usage: Non-porous surfaces and urethane sealants. A low-VOC, water-based, quick-drying, one-part primer. TREMprime Non-Porous Primer is not a film-forming primer. It is used as an adhesion promoter for urethane sealants and coatings on non-porous surfaces such as metals and plastics. Apply with a clean cloth. Remove all excess primer from cloth to ensure a very thin layer is applied. Dry time is 15 min at 70 °F (21˚C). Primer must be completely dry before applying sealant or coating. Urethane sealants and coatings can be applied up to 8 hr after primer has been applied. After 8 hr, the surface must be cleaned with a Tremco approved solvent and reprimed with TREMprime Non-Porous Primer.

Coverage Rate: 1400 to 1800 ft²/gal

Packaging: 1-qt (946-mL) can
1-gal (3.8-L) pails

Vulkem Primer #171 (Not for use in Canada and OTC states)

Usage: Porous surfaces, urethane sealants, Vulkem Coating Systems and TREMproof membranes. Quick-drying, one-part, moisture-curing primer. It is used as an adhesion promoter for Vulkem brand urethane sealants and coatings and TREMproof membranes on porous surfaces such as concrete and wood. Apply generously with a clean brush or roller. Do not apply in excess where it will puddle or pond. At 70 °F (21˚C), allow 30 to 45 min for primer to become tacky before applying sealant, coating or membrane. Do not allow primer to dry completely. Do not apply sealant or coating if primer becomes hard or glossy. If it does, clean with a Tremco approved solvent and coat with Vulkem 191 Primer.

Coverage Rate: 100 to 600 ft²/gal

Packaging: 1-qt (946-mL) can
1-gal (3.8-L) pails
5-gal (18.9-L) pails

TREMprime Multi-Surface Urethane Primer

Usage: Porous surfaces, interlaminary, urethane coatings. Low-VOC (<60 g/L), two-part epoxy primer used to condition and prep porous surfaces and existing coatings for application of a new coating layer. Apply with a short nap roller or brush

evenly to the surface. Primer must dry completely before coating application as indicated by turning from milky-white to completely clear.

Coverage Rate: 200 to 300 ft²/gal

Packaging: 3-gal (11.4- L) kits:
Part A: 2-gal (7.6 L) can
Part B: 1-gal (3.8 L) can

Vulkem 191 Primer

Usage: Porous surfaces, interlaminary, urethane sealants, coatings and TREMproof membranes. It is used to prepare surfaces of cured urethane sealants, coatings and TREMproof membranes that will be sealed with a fresh coat. Apply with a clean brush or roller. Do not apply in excess or allow to puddle. Use a short nap roller only. Dry time is 25 to 45 min at 70 °F (21˚C). Apply coating or sealant within 1 to 2 hr after application when primer is still tacky but does not come off substrate. Primer will yellow with time if left exposed. Do not apply in excess to other substrates not intended to be coated. Do not apply sealant or coating if primer becomes hard or glossy. If it does, clean with a Tremco approved solvent and reprime with Vulkem 191 Primer.

Coverage Rate: 400 to 450 ft²/gal for interlaminary applications. VOC-compliant.

Packaging: 1-qt (946-mL) can
1-gal (3.8-L) pails
5-gal (18.9-L) pails

TREMprime VB

Usage: Two-component, epoxy-based, solvent-free vapor barrier primer for mitigating vapor drive caused by moisture in concrete for use with our Vulkem coatings, including Vulkem EWS.

Coverage Rate: For concrete RH of 88% or above, two coats of TREMprime VB are required.
When applied in one coat, 1 gal / 100 sq. ft. (16 mils).
When applied in two coats, 1 gal / 100 sq. ft. (16 mils) each, 20-40 mesh silica sand broadcast into second coat until refusal.

Packaging: 3.6-gal (13.6-L) kits:
Part A - 2.4-gal (9.08 L) pail
Part B - 1.2-gal (4.54 L) pail

TREMprime QD Low-Odor Primer

Usage: Porous and non-porous surfaces, TREMproof 6100 solvent-based modified bituminous roofing primer for use in preparing porous and non-porous surfaces for application of TREMproof 6100.

Coverage Rate: Concrete: 150 to 300 ft²/gal; Metal: 300 to 350 ft²/gal

Packaging: 5-gal (18.9- L) pails

ExoAir Primer

Usage: ExoAir Primer is specifically formulated for use with the ExoAir membranes. It can be used on porous and non-porous substrates. Surfaces to be primed should be dry, clean, smooth, firm, free of dust, mud, loose mortar, or any other substance that may prevent placement and bonding of the ExoAir membrane. Allow the ExoAir Primer to develop a tack, non-transferrable film (typically 15 to 30 min) prior to installing any membrane. Prime only those surfaces that will be completed that day.

Coverage Rate: Approximately 250 ft²/gal (6 m²/L), depending on porosity and texture of substrate.

Packaging: 5-gal (18.9- L) pails

Color: Green

TREMprime HR Primer

Usage: Porous and non-porous surfaces for application of Tremco hot-applied asphaltic fluids. Solvent-based modified bituminous primer promotes adhesion of Tremco asphaltic hot-applied fluids such as TREMproof 6100 and TREMproof 6100BM.It is a multi-purpose primer and can be used on a variety of surfaces, such as concrete, masonry, metal, gypsum, and new or weathered bituminous surfaces. Apply using a brush, short nap roller or airless spray system.

Coverage Rate: 200 to 400 ft^2/gal

Packaging: 5-gal (18.9- L) pails

AVAILABILITY

Immediately available through Tremco distributors throughout the United States, Canada and overseas.

COVERAGE RATES

All coverage rates listed are approximate and may differ depending upon texture of the substrate finish.

COLORS

Colors of the primers will vary depending on primer.

FIRE RATED SYSTEMS

- None presently listed. For firestop engineering judgement requests please visit www.tremcosealants.com or contact Tremco Technical Services at 866-209-2404.

LIMITATIONS

- All surfaces must be sound, clean, dry and free from contamination. A thorough wire brushing, grinding, sandblasting or solvent cleaning may be required to expose clean, sound, virgin surfaces.
- Any questions regarding drying times, coverage rates and unique application techniques regarding the individual primers should be directed to Tremco Technical Services or your local Tremco Sales Representative.
- Do not apply over contaminated or damp surfaces.
- Do not thin.

WARRANTY

A repair or replacement warranty is available on all Tremco products. Visit https://www.tremcosealants.com/warranties/ for details.

Please refer to our website at www.tremcosealants.com for the most up-to-date Product Data Sheets.

NOTE: All Tremco Safety Data Sheets (SDS) are in alignment with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) requirements.

TREMCO

TECHNICAL DATA SHEET

TREMprime® WB PRIMER

A Quick-Drying Water Based Asphaltic Primer

COMPOSTION

TREMprime® WB is a wate based polymer modified asphalt primer formulated from refined select asphalt, special adhesion, promoters and synthetic polymers which conditions a variety of roofing substrates prior to the application of Tremco Roofing Systems and coatings. TREMprime WB is asbestos free, easy to use, and is low in volatile organic compounds to meet the requirements of the National Architectural Coatings regulation.

BASIC USES

TREMprime WB promotes adhesion between new and weathered surfaces and Tremco Roofing Systems and coatings.

LIMITATIONS

- Not intended to be used as a final coating.
- Do not apply when rain appears imminent.
- Do not apply below 45°F (7°C).
- Do not freeze container.
- Store indoors in a heated area.
- Surfaces primed with TREMprime WB must be reprimed if open for more than 24 hours.

FEATURES AND BENEFITS

Non-fibrated - Allows maximum penetration of dried felts and porous substrates.

Adhesion promoters - Conditions asphalts and felts to provide highly receptive surface for protection treatments.

Quick drying formula – Minimizes wait for curing.

Readily workable consistency – Easily brushes into rougher substrates providing more uniform surfaces and can be used on metal work and other surfaces.

Water based – Environmentally cleaner and meets VOC standards.

GRADE

Brush/roll/spray.

RECOMMENED SPRAY EQUIPMENT

Minimum 11:1 ratio pump with 0.015" to 0.021" spray tip.

PACKAGING

TREMprime WB is available in 1 gallon (3.78L), 5 gallon (19L) containers and 53 gallon (200L) plastic lined drums.

APPLICATION

Remove all loose dust, dirt, rotted felt, and foreign matter. Surface must be clean and dry. When spraying TREMprime WB take necessary precautions to prevent overspray.

COVERAGE

Coverage will vary depending upon actual surface and application conditions. Approximately 200-400 sq ft/gal (4.9-9.8 m^2/L).

CLEAN UP

Promptly clean tools and equipment with soap and water. Dried primer can be cleaned with mineral spirits.

PRECAUTIONS

Use TREMprime WB with adequate ventilation. Users must read container labels and Material Safety Data Sheets for health and safety precautions prior to use.

AVAILABILITY

Immediately available from your local Tremco Sales Representative, Tremco distributor, or warehouse.

MAINTENANCE

Your local Tremco 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.

WARRANTY

A repair or replacement warranty is available on all Tremco products. Visit https://www.tremcosealants.com/warranties/ for details.

Please refer to our website at www.tremcosealants.com for the most up-to-date Product Data Sheets.

NOTE: All Tremco Safety Data Sheets (SDS) are in alignment with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) requirements.

TPWB-DS/0323