

APPLICATION INSTRUCTIONS

1. Purpose

- 1.1 The purpose of this document is to establish uniform procedures for installing TREMDrain Series Drainage Mats.
- 1.2 The techniques involved may require modifications to adjust to jobsite conditions. Tremco recognizes that site specific conditions, weather patterns, contractor preferences and 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 as required.

2. Scope

- 2.1 This document will provide the necessary instructions for the application of TREMDrain Series Drainage Mats to qualify for the manufacturer's warranty.

3. Limitations

- 3.1 Not for use beneath sand-set vehicular pavers.
- 3.2 When installing TREMDrain GS, the type of plants and/or vegetation, soil type, and other related components should be reviewed and specified by a regional horticulturist for selection of vegetation appropriate for your specific region.
- 3.3 Store indoors or under separate UV-protective cover to protect materials from exposure to direct sunlight.
- 3.4 When using paving equipment, 4" of compacted Granular B is required over the drainage mat prior to use of paving equipment.

4. Storage

- 4.1 Store indoors or under separate UV-protective cover to protect materials from exposure to direct sunlight.

5. Drainage Installation

- 5.1 TREMDrain Series Drainage Mats may be installed in backfilled wall, blindside wall, between slab, and on occasion below slab-on-grade applications.
- 5.2 Backfilled Wall Applications:
- 5.2.1. TREMDrain Series Drainage Mats may be installed with the seams running horizontally or vertically over the waterproofing system.
- 5.2.2. If the waterproofing system is cold fluid-applied, the membrane must be fully cured or set prior to placement of the drainage. A protection course may be placed over the membrane prior to drainage installation. Then drainage may be placed immediately over the protection course.
- 5.2.3. Place drainage with the filter fabric (all types) facing the installer. The seams should tightly abut or slightly overlap the flange so that the filter fabric overlaps. The seams should then be taped with underground rated tape (optional; product is not supplied by Tremco).
- 5.2.4. When the seams align horizontally, the seam shall be placed such that the fabric creates a ship lap. The TREMDrain Series Drainage Mat may be adhered with 3M's Holdfast 70 spray adhesive, fastened above the cold fluid membrane termination, or insulation pins may be adhered to the

waterproofing and the drainage installed against the pins. The drainage may also be held in place by slowly backfilling during installation.

5.2.5. At the grade line, using a utility knife, cut back four inches of the core taking care not to cut the fabric. Fold the fabric back behind the core so that the top of the drainage is completely covered to prevent any backfill material from entering the core. NOTE: Do not mechanically fasten through the cold fluid applied waterproofing membrane.

5.2.6. If using Tremco's sheet applied waterproofing membrane, drainage should be fastened above the waterproofing termination and adhered with a Tremco approved adhesive.

5.3 Blindside Wall Applications:

5.3.1. TREMDrain Series Drainage Mats may be installed with the seams running horizontally or vertically over the substrate. In a blindside wall application, the substrate may be wood lagging with steel piles, steel sheet piling, augered caisson, shotcrete with concrete piles, shotcrete with steel piles. Earthen form is not an acceptable substrate for Tremco waterproofing products. Please contact your local Tremco Sales Representative.

5.3.2. Wood lagging with steel piles: Substrate must be approved by your local Tremco Sales Representative prior to application. Wood lagging boards shall be evenly placed and in the same plane. There shall be no gaps one inch or greater between boards. The TREMDrain Series Drainage Mat shall be mechanically fastened with the core facing the installer. The fabric must be placed against the substrate.

5.3.3. Seams should tightly abut or slightly overlap the flange so that the filter fabric just overlaps. The seam shall then be taped with underground rated tape (not supplied by Tremco). When the seams align horizontally, the seam shall be placed such that the fabric creates a ship lap. Remember, in a blindside application the bottom fabric flap will be tucked up under (fabric visible to the installer) the top run of TREMDrain Series Drainage Mat. Seams should be nailed every 18" O.C.

5.3.4. Steel sheet piling: When installing TREMDrain Series Drainage Mat within the profile of the steel sheet piling all sharp protrusions must be removed. Steel piling sheet seams should be sealed with Dymonic® 100 prior to drainage mat installation. If the drainage mat is to span the sheet piling voids, treated plywood shall be installed across the void and fastened into place. Prior to the drainage placement over the treated plywood, the void behind it shall be filled with sand or pea gravel as per the recommendation of the engineer of record.

5.3.5. The engineer of record shall determine the thickness of the treated plywood and anchorage spacing depending on the height of the piling, the span of the treated plywood and the resultant lateral pressure exerted. Seams or gaps created between treated plywood may be filled with Dymonic 100.

5.3.6. The TREMDrain Series Drainage Mat should be mechanically fastened with the core facing the installer. The fabric must be placed against the substrate. The seams should tightly abut or slightly overlap the flange so that the filter fabric just overlaps. The seam should then be taped with underground rated tape (not supplied by Tremco). When the seams align horizontally, the seam shall be placed such that fabric creates a ship lap. Remember, in a blindside application the bottom fabric flap will be tucked up

under (fabric visible to the installer) the top run of TREMDrain Series Drainage Mat. Seams should be nailed every 18" (45.7 cm) O.C.

5.3.7. Augered caisson: The TREMDrain Series Drainage Mat may be installed on the surface of the individual augered piers if they are relatively smooth. However, the "crotch" between each pier must be filled in with concrete grout and all sharp protrusions removed from the caisson wall. If the surface of the augered piers is rough and irregular, then continuous treated plywood sheets must be installed and anchored to the caisson wall. The void created behind the treated plywood should be filled with sand or pea gravel as noted above. Follow engineer's recommendation as noted above.

5.3.8. Seams or gaps created between treated plywood may be filled with Dymonic 100. The TREMDrain Series Drainage Mat should be mechanically fastened with the core facing the installer. The fabric must be placed against the substrate. The seams should tightly abut or slightly overlap the flange so that the filter fabric just overlaps. The seam should then be taped with underground rated tape (not supplied by Tremco). When the seams align horizontally the seam shall be placed such that the fabric creates a ship lap. Remember, in a blindside application the bottom fabric flap will be tucked up under (fabric visible to the installer) the top run of TREMDrain Series Drainage Mat. Seams should be nailed every 18" (45.7 cm) O.C.

5.3.9. Shotcrete with concrete/steel piles: Prior to the installation of TREMDrain Series Drainage Mat make sure the wall is clean of all dirt. Any protrusions should be removed. Fill all voids that exceed 2" (5.1 cm) wide by 1" (2.54 cm) deep with concrete grout, fill smaller voids with Dymonic 100 or Paramastic. The TREMDrain Series Drainage Mat should be mechanically fastened against the substrate. The seams should tightly abut or slightly overlap the flange so that the filter fabric just overlaps. The seam should then be taped with underground rated tape (not supplied by Tremco). When the seams align horizontally the seam shall be placed such that the fabric creates a ship lap. Remember, in a blindside application the bottom fabric flap will be

tucked up under (fabric visible to the installer) the top run of TREMDrain Series Drainage Mat. Seams should be nailed every 18" (45.7 cm) O.C.

5.3.10. Earthen form: This is not an acceptable substrate for Tremco waterproofing products. Please contact your local Tremco Sales Representative.

5.3.11. Below Slab-on-Grade: When installing the TREMDrain Series Drainage Mat on compacted granular it must be compacted to a minimum 90 proctor. The orientation of the TREMDrain Series Drainage Mat may change depending on whether the drainage is placed under the slab or on a mud slab. Contact the site engineer of record and your local Tremco Sales Representative if placing drainage is required for this job site condition.

5.3.12. Between Slab/Split Slab: Allow the cold fluid-applied membrane to fully cure prior to the placement of the TREMDrain Series Drainage Mat. Typically there will already be a protection course present. In this scenario, the drainage may be placed over the protection course. Tightly butt the seams running horizontally and vertically. The flange may be overlapped abutting the first row of dimples. Make sure the fabric overlaps fabric in the next run and tape using underground rated tape (not supplied by Tremco). Do not overlap the core onto the fabric of the subsequent run of drainage mat. An approved adhesive may be used to secure the drainage. Contact your local Tremco Sales Representative or Tremco Technical Services.

5.3.13. When applying HRA membrane to the structural deck, typically a protection course will precede the drainage mat application. If drainage is going to be applied directly to the HRA, the HRA must be cool. The drainage must have the PF (polymeric film) on the back of the core. The installation should be followed as noted above for the cold fluid-applied membranes. Note: Do not mechanically fasten through the fluid-applied membrane.

5.3.14. Planters: Allow the cold fluid-applied membrane to cure or the HRA membrane to cool prior to proceeding. The use of Tremco's polyethylene root barrier protection course is recommended. Tightly butt the seams running horizontally and vertically. The flange may be overlapped abutting the first row of dimples. Make sure the fabric overlaps fabric in the next run and tape using underground rated tape (not supplied by Tremco). Do not overlap the core onto the fabric of the subsequent run of drainage mat. An approved adhesive may be used to secure the drainage. Contact your local Tremco sales Representative or Tremco Technical Services.

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Please refer to our website at www.tremcosealants.com for the most up-to-date Application Instructions.

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