

APPLICATION INSTRUCTIONS

1. Purpose

- 1.1 The purpose of this document is to establish uniform procedures for installing Paraseal membranes on backfilled walls. These instructions are not intended for submerged or methane applications.
- 1.2 The techniques involved may require modifications to adjust to job site 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 as required.

2. Scope

- 2.1 This document will provide the necessary instructions for the application of Paraseal membranes to qualify for the manufacturer's warranty.

3. Possible System Components

- 3.1 Recommended materials and their use are as follows. For more information on the following materials, please contact your local Tremco Sales Representative or visit our website for product specific data sheet and application instructions at www.tremcosealants.com.
 - Paraseal is a sheet waterproofing membrane consisting of 15 mils of HDPE and expandable, granular bentonite. The bentonite is laminated to the HDPE, creating a dual waterproofing system.
 - 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 bentonite is laminated to the HDPE, creating a dual waterproofing system.
 - Paraseal GM is a sheet waterproofing and methane-mitigating membrane consisting of 20 mils of HDPE and expandable granular bentonite. The HDPE extends beyond the bentonite on the perimeter edges to create a clean surface for Para JT™ Tape and Parastick 'n' Dry® installation.
 - Paraseal GM/LG-20 mil is a sheet waterproofing and methane-mitigating membrane consisting of 20 mils of HDPE, expandable granular bentonite and a protective layer of spun-bonded polyester. The bentonite is laminated to the HDPE, creating a dual waterproofing system. The HDPE extends beyond the bentonite

on the perimeter edges to create a clean surface for Para JT Tape and Parastick 'n' Dry installation.

3.2 Other Accessories:

- Dymonic® 100 Sealant
- Para JT™ Tape
- Paragranular™
- Paramastic™
- Paraprimer®
- Parastick 'n' Dry®
- Paraterm Bar™
- Permanent Seam Tape™
- Superstop
- TREMDrain® Series Drainage Mat
- TREMproof® 250GC-T

4. Limitations

- 4.1 Paraseal products require a minimum of 24 psf of compaction/confinement.
- 4.2 Paraseal products are not to be installed over ponding or standing water or snow.
- 4.3 Contact Tremco whenever conditions of acid, alkali, salt brine or gas vapor exist. If ground water is brackish, please contact your local Tremco Sales Representative four weeks prior to a pending application, and provide a water or soil sample for testing purposes in order to determine the correct bentonite formula for your project's application.
- 4.4 If backfill contains substantial amounts of either lava rock, basalt or any other coarse or highly abrasive materials, a protection course or

Paraseal® Membranes Backfilled Wall

drainage mat may be required. Contact your local Tremco Sales Representative or Technical Services at 866-209-2404 for details.

- 4.5 If submerged conditions exist, please contact your local Tremco Sales Representative.

5. Storage

- 5.1 Protect from moisture.
- 5.2 Store on a skid or pallet and cover with polyethylene or tarp.
- 5.3 Do not double stack pallets.
- 5.4 Prevent hydration of bentonite until the sheet is installed and under recommended compaction.

6. Substrate Preparation

- 6.1 Surface to be covered must be smooth, firm, and free from mud, loose mortar, wires, fins, metal projections or any other substances that might prevent placement of membrane.
- 6.2 CMU walls shall have all joints filled and struck flush. Any voids shall be patched with mortar, a non-shrinking grout or other approved patching material.
- 6.3 Parge coating is not required unless the substrate is extremely rough and irregular. Contact Tremco for recommendations on specific projects.
- 6.4 Paraseal may be installed over damp or green surfaces.
- 6.5 All honeycombs or voids and irregularities which exceed 1/4" (6.4 mm) in depth shall be repaired with TREMproof 250GC-T, Paramastic or concrete mortar.

7. Detail Work

- 7.1 Install a continuous 2" (5 cm) cant of Paragranular where wall meets footing and at all other vertical to horizontal junctures.
- 7.2 Install a continuous 1" (2.5 cm) vertical cant of TREMproof 250GC-T or Paramastic at all vertical inside corners.
- 7.3 Please consult www.tremcosealants.com for detail drawings and technical bulletins showing typical transitions and tie-ins. For job specific details or questions, please contact Tremco Technical Services at 866-209-2404.
- 7.4 Following good concrete industry practices, a waterstop should be used at all construction cold joints. Install Superstop a minimum of 2" (5 cm)

from outer face of wall. It is recommended to apply Paraprimer to clean surface prior to adhering Superstop on vertical surfaces. Primer is recommended for horizontal surfaces. Remove release paper to expose adhesive. Butt ends together and fasten with nails and 1" (2.5 cm) washer every 12" (30 cm) O.C.

8. Membrane Application

- 8.1 Paraseal shall be installed against backfilled walls with the granular bentonite side against the substrate and the black HDPE side facing the installer.
- 8.2 Paraseal may be installed with a minimum of 1.5" (3.8 cm) overlapped seams running either vertically or horizontally or a combination with equal performance. Seams shall be shingle lapped so that upper sheet is over lower sheet when seams run horizontally.
- 8.3 Fasten with nails and 1" (2.5 cm) washers every 36" to 48" (91.4 cm to 121.9 cm) O.C. Taping all vertical seams with Permanent Seam Tape is required. Install Paraterm Termination bar and nail every 8" (20 cm) O.C. Termination of Paraseal membrane occurs at or immediately below the finished grade. Complete installation at penetrations as required per Tremco's published details referenced in section 7.3 above. Refer to Tremco standard details for treatment of seams.
- 8.4 Paraseal membranes seldom require additional protection unless the backfill contains substantial amounts of either lava rock, basalt or any other course or highly abrasive materials. Contact Tremco Sales Representative or Technical Services at 866-209-2404 for recommendations.
- 8.5 Following good industry practices, a TREMDrain Series drainage mat should be installed prior to backfilling.

9. Protection

- 9.1 Even though the HDPE side of Paraseal protects it from weather and subsequent trades, it is advisable to place and compact as soon as possible after installation.

10. Inspection, Testing and Repair

- 10.1 Compact backfill to at least 85% Modified Proctor density.
- 10.2 Paraseal membranes require 24 psf of compression/compaction.

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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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