



# APPLICATION INSTRUCTIONS

# PARASEAL® MEMBRANES BELOW SLAB-ON- GRADE

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## 1. PURPOSE

- 1.1 The purpose of this document is to establish uniform procedures for installing Paraseal membranes below slab-on-grade.
- 1.2 The techniques involved by require modifications to adjust to job site conditions. Tremco recognizes that site specific conditions, weather patterns, contactor 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 Service be contact for assistance as required.

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## 2. SCOPE

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

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## 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](http://www.tremcosealants.com).
  - 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

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## 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 week 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 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.

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## 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.

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## 6. SUBSTRATE PREPARATION

- 6.1 Paraseal LG can be installed in conjunction with any of the four typical slab-on-grade systems with equal performance. The slab-on-grade system (simple slab, mat slab with protection slab, mat slab with mud slab) is selected and the corresponding Paraseal LG and/or Paraseal GM/LG-20 mil installation is based on such factors as hydrostatic pressure, grade conditions, climate, traffic by other trades, etc. Contact Tremco for project specific recommendations.
- 6.2 The grade should be prepared by either compacting the original earth, compacting a granular base or by installing a mud slab meeting a minimum modified 85% proctor density per architect's design.
- 6.3 -If submerged conditions exist, refer to Paraseal Membranes Application Instructions for Below Slab-on-Grade in submerged conditions and contact Tremco.

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## 7. DETAIL WORK

- 7.1 All penetrations shall be secured prior to detailing. For single pipe penetrations, refer to Tremco standard details. Multiple penetrations shall be spaced a minimum of 6" (15 cm) apart to allow for proper detailing. If 6" (15 cm) spacing is not available, contact Tremco for a job-specific recommendation. If sealed or cored pipes are present, contact Tremco.
- 7.2 Following good concrete industry practices, a waterstop should be used at all construction cold joints. Install Superstop minimum 2" (5 cm) from face of wall.
- 7.3 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.

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## 8. MEMBRANE APPLICATION

- 8.1 Bentonite facing up is the preferred installation method. However, if for reasons of protection, the bentonite is facing down, a 6-mil polyethylene sheet must first be installed on top of the earth or base.
- 8.2 All below floor slab installations shall be lapped 4" (10.2 cm) minimum at all seams.
- 8.3 **BENTONITE FACING UP**
  - All seams shall be stapled every 8" (20 cm) O.C. for Paraseal LG.
  - For Paraseal GM/LG, all seams shall be double taped with Para JT Tape and Permanent Seam Tape.
  - Protect Paraseal LG or Paraseal GM/LG from damage caused by reinforcing rebar by using plastic chairs or other acceptable methods.

- For slabs thicker than 6", Tremco recommends a 2" sand slurry protection slab. Refer to the detail drawings on the Tremco website at [www.tremcosealants.com](http://www.tremcosealants.com)

#### 8.4 BENTONITE FACING DOWN

- All Paraseal LG seams shall be taped with Permanent Seam Tape when bentonite is facing down.
- All Paraseal GM/LG-20 mil seams shall be taped using Para JT Tape and Permanent Seam Tape when bentonite is facing down.

8.5 Terminate around perimeter to tie-in to wall application of system. Refer to Tremco Standard details.

#### 8.6 CONCRETE PLACEMENT

- Repair any damaged Paraseal GM/LG prior to concrete placement, after steel reinforcement is tied in place.
- Concrete placement should not be dropped over 4' (1.2 M) directly on Paraseal LG or Paraseal GM/LG-20 mil. Best to flow in place.

8.7 PARABSOG/1224

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[tremcosealants.com](http://tremcosealants.com) | 800.321.7906



Construction Products Group

3735 Green Rd. | Beachwood, OH 44122  
800.321.7906 | [tremcocpg.com](http://tremcocpg.com)