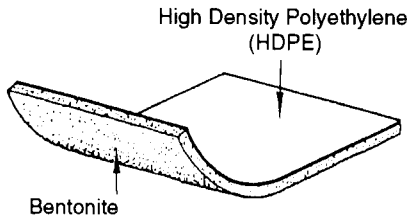


## Paraseal

### HDPE/Bentonite Sheet Membrane Dual Waterproofing System

#### Product Description

Paraseal is a self-sealing sheet waterproofing membrane manufactured to controlled thicknesses of 150 mils to 200 mils of tough, high density polyethylene (HDPE) and expandable granular Bentonite.



The Bentonite, capable of expanding up to 8 times its thickness, is laminated at a rate of up to one pound per square foot to the impermeable HDPE sheet forming a superior Dual Waterproofing System for application to vertical and horizontal surfaces.

#### Basic Uses

Paraseal is a waterproofing membrane designed for use on structures below grade or between slab. It is excellent for use on poured and block foundation walls, split slab parking and plaza decks. It has outstanding performance when used under conditions of high water head and installed prior to the concrete pour such as retaining walls, elevator pits, etc.

#### Packaging

4' x 24' (1.2 m x 7.3 m) standard rolls.

Also available by SPECIAL ORDER:

- Larger size rolls may be customized for a nominal cutting charge.

#### INSTALLATION

For complete details, refer to Tremco's published Architectural Guidelines or the Tremco website [www.tremcosealants.com](http://www.tremcosealants.com).

#### Preparatory Work

Examine all surfaces prior to starting application. Dust may be present; however all debris must be removed. Standing water and sharp protrusions over 1/4" (6.4 mm) must be removed. Installation may proceed on uncured, damp or frozen surfaces. Paraseal is compatible with all currently used release agents.

#### Vertical Walls

Paraseal rolls are installed vertically or horizontally with the HDPE side facing the installer, by nailing across the top, lapping edges 1-1/2" (3.8 cm) and nailing vertical seam every 2' (0.6 m) with masonry nails.

Permanent Seam Tape or box staple all seams. Pour 1-1/2" (3.8 cm) cove of TREMproof 201/60T, 250GC-T, Paragranular or Paramastic at intersection of wall and footing prior to Paraseal installation. Compact fill to minimum 85% modified proctor.

#### Under Floor Slab (minimum thickness 3") (7.6 cm):

Refer to Paraseal LG. Contact your local Tremco representative.

**Between Slab** Paraseal can be used or refer to Deckseal data sheet and installation details.

**Lagging** Refer to Paraseal LG data sheet and Lagging Installation details.

#### Protection

The Paraseal dual waterproofing system has a PUNCTURE RESISTANCE of 169 lbs. (76.6 kg) and does not require an additional protection course for most applications. For special applications, contact your Tremco Representative for details.

#### Storage

Protect from moisture. Store on skid or pallet, cover with polyethylene or tarp.

#### Availability

Immediately available from distributors worldwide.

#### Limitations

If groundwater is brackish, SALTWATER Grade Paraseal may be required. Paraseal products require compaction/confinement to be effective. A minimum 24 psf confinement is required. In lagging situations, Paraseal LG (Lagging-Grade) is required. In situations where methane or continual submersion may occur, Paraseal W/GM (Waterproofing/Gas-Membrane) is required. Contact your local representative or technical services for more information.

#### Warranty

Tremco warrants its Paraseal Membranes 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 Paraseal Membranes, sole obligation shall be, at its option, to replace, or to refund the purchase price of the quantity of Paraseal Membrane proved to be defective and Tremco shall not be liable for any loss or damage including incidental or consequential damages arising from the use of Paraseal Membranes.

## TYPICAL PHYSICAL PROPERTIES

Physical Property	Test Method	Value
Color: Gray/Black		
Tensile Strength: Membrane (psi)	ASTM D412	4,000 psi (27.6 MPa)
Resistance to micro organisms (bacteria, fungi, mold, yeast)		Unaffected
% Elongation-ultimate failure of membrane:	D412 Type 4 Dumbell	700%
Puncture Resistance	ASTM E154-88	169 lbs. (76.6 kg)
Resistance to hydrostatic head [FT. (m) of water]:	ASTM D751 Method Footnote #2	150 ft. (45.6 m)
Resistance to water migration under membrane:	Footnote #1	150 ft. (45.6 m)/Head zero leakage
Permeance	ASTM E96	0.031 Grains/hr*ft*in.Hg. or $2.7 \times 10^{-13}$ cm/sec or 1.7 ng/Pa.s.m <sup>2</sup>
Installation Temperatures		-25°F to 130°F (-31.7°C to 54.4°C)

Non-toxic: Do not ingest

Freeze/thaw cycles: No effect before or after installation.

Non-staining: No known incompatibilities

Resistance to chemicals & gases: Extremely high resistance - contact manufacturer for specific information.

Life Expectancy: both high density polyethylene and bentonite have life expectancy measurable in thousands-of-years.

### FOOTNOTES FOR TECHNICAL DATA:

1. A 1" (2.5 cm) diameter hole was cut in the middle of a 3-1/2" (8.9 cm) diameter sample of Paraseal. Sample clamped in 3" (7.6 cm) diameter permeameter, 150' (45.6 m) water head applied.
2. Membrane applied to porous stone and placed in permeameter. Pressure increased to equivalent of 150' (45.6 m) water head.

\*Above based on 20 mil HDPE/Bentonite System

