

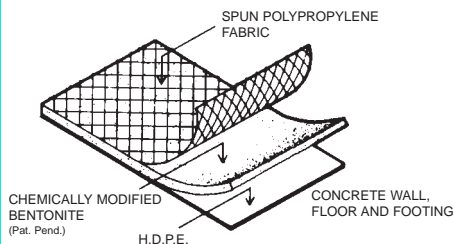
Paraseal™ LG

Multiple Component Sheet Membrane Waterproofing System

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Product Description:

Paraseal LG is a multi-layer sheet membrane waterproofing system. It consists of a self-sealing, expandable layer of granular bentonite laminated at the rate of up to one pound per square foot to an impermeable, high density polyethylene (HDPE). The third component is a protective layer of spun polypropylene. Together, these three components form a tough, high performance waterproofing membrane manufactured in controlled thicknesses of 170 mils to 200 mils, specially designed for blindside installations such as lagging, under floor and elevator pits. Paraseal LG also withstands applications where shotcrete is blown directly into the face of the membrane.



Basic Uses:

Paraseal LG is especially effective when waterproofing from the blindside (lagging, etc.) where the waterproofing membrane is applied before the walls or floor are poured. It is designed to resist damage from multiple exposure to inclement weather, extremely abrasive concrete pours or direct installation of shotcrete. Paraseal LG will also exhibit outstanding protection against water intrusion in areas of high water heads. Its special weather treatment allows Paraseal LG to be installed

over relatively long periods of time before the walls are poured.

Limitations:

If groundwater is brackish, consult Tremco. Do not apply in standing water or over snow.

Packaging:

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

Also Available by SPECIAL ORDER:

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

NOTE: This specification data is not complete. Use installation guidelines from specification manual for detailed information.

INSTALLATION:

For complete details, refer to the appropriate Paraseal LG Installation Manual. All blindside installations have bentonite side facing installer.

Preparatory Work:

Examine all surfaces prior to starting application. All spaces between lagging larger than 1" (2.5cm) shall be covered with 1/4" (6.4mm) plywood prior to installation.

Lagging:

Paraseal LG may be installed in a vertical or horizontal direction. Lap joints 3" (7.6cm) shingle fashion (top over bottom) when pouring against, 6" (15.2cm) shingle fashion (bottom over top) when shotcreting against. Fasten all seams at 6" (15.2cm) over center. Trowel Paramastic or Vulkem 201 T around all tiebacks and penetrations. Protect from flooding prior to concrete pour.

Earth:

Paraseal LG may be used to cover earth design cuts which are to serve as the external side of a vertical wall form. Overlap joints 4" (10.2cm) to 6" (15.2cm) depending on regularity of soil cut.

Buried Forms:

Paraseal LG may be directly attached to forms which are to be left in the earth after the concrete is poured (i.e. elevator pits, sumps, etc.). Overlap joints min 3" (7.6cm).



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Under Floor:

Paraseal LG is installed whenever direct contact of the bentonite and floor slab are desired. Paraseal LG will form an instant seal to floor area. Overlap joints 3" (7.6cm). May be installed over consolidated earth, sand or mud slab.

To establish a moisture vapor protective barrier beneath the floor, all seams are sealed with Permanent Seam Tape.

Penetration:

Tiebacks, tie bolts, misaligned soldier piles, whalers and bracking may all penetrate the Paraseal LG membrane. Should this occur, contact your Tremco representative.

Protection:

The Paraseal LG 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. Do not double stack pallets.

Availability:

Immediately available from distributors worldwide.

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 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. Tremco's 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.

TECHNICAL DATA

Physical Properties	Value	Test Method
Pliability: 180° bend over 1" (2.5cm) mandral -25°F (-31.7°C)	10,000	ASTM-D146
Tensile Strength: Membrane (PSI)	4,000 PSI (27.6MPa)	ASTM-D412
Resistance to microorganisms (bacteria, fungi, mold, yeast)	unaffected	
Elongation-ultimate failure of membrane:	700%	D638 Type 4 Dumbbell
Puncture Resistance:	169 Lbs (76.6kg)	FTMS 101B
Resistance to hydrostatic head (Ft. (m) of water):	150 Ft (45.6m)	ASTMD751 Method A Footnote #4
Resistance to water migration under membrane: zero leakage	150 Ft (45.6m)/Head	Footnote #1
Water migration at or through joint	Instant seal/ no penetration	Footnote #5
Perm rating	0.03	ASTM E96
Permeance co-efficient of permeability:	2.7x10 ⁻¹³ cm ³ /cm ² /sec.	Footnote #4
Cycling over 1 1/2" (38.1mm) joint:	No deterioration 2000 cyc.	Footnote #2
Cycling over 1/4" (6.4mm) crack: 250 cyc.	No deterioration	Footnote #3
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:

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

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

FOOTNOTES FOR TECHNICAL DATA:

1. A 1" (2.5cm) diameter hole was cut in the middle of a 3 1/2" (8.9cm) diameter sample of Paraseal LG. Sample clamped in 3" (7.6cm) diameter permeameter, 150' (45.6m) waterhead applied.
2. Membrane placed between 2 clamps 1 1/2" (3.8cm) apart. Temperature reduced to -25°F (-31.7°C) and clamps are pulled apart to 2 1/2" (6.4cm). Cycle repeated between 1 1/2" (3.8cm) and 2 1/2" (6.4cm) - 2000 times.
3. Membrane placed between 2 butting clamps. Clamps spread 3/8" (1cm) at -25°F (-31.7°C). Cycle repeated 250 times.
4. Membrane applied to porous stone and placed in permeameter. Pressure increased to equivalent of 150 ft. (45.6m) water head.
5. Test same as #4 only performed at joint.
6. Above values on 20 mil HDPE system.

TREMCO INCORPORATED

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