

Paraseal LG

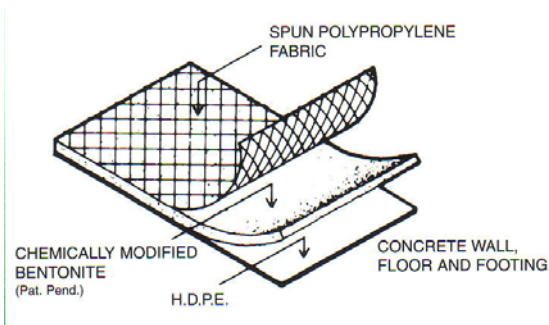
HDPE / Bentonite Sheet Membrane Waterproofing system

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 4.5kg per square metre 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 3.75-5mm, 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 ground water is brackish, consult Equus - this may require Saltwater Paraseal. Do not apply in standing water or over snow.

Packaging:

1.2m x 7.3m standard rolls. 20 rolls/pallet

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 2.5cm shall be covered with 6mm plywood prior to installation.

Lagging:

Paraseal LG may be installed in a vertical or horizontal direction. Lap joints 75mm shingle fashion (top over bottom) when pouring against, 150mm shingle fashion (bottom over top) when shotcreting against. Fasten all seams at 200mm centres. Trowel Paramastic 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 100mm to 150mm 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 75mm.

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 75mm. May be installed over consolidated earth, sand or tidy slab.

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

Penetration:

Tiebacks, tie bolts, misaligned soldier piles, walers and brackets 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 76.6kg and does not require an additional protection course for most applications. For special applications, contact your Equus Representative for details.

Storage:

Protect from moisture. Store rolls upright on skid or pallet, cover with polyethylene or tarp. Do not double stack pallets.

Warranty:

Tremco warrants its Paraseal Membranes to be free of defects in materials, but makes no warranty as to appearance or colour. 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 2.5 mandral -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: | 76.6kg | FTMS 101B |
| Resistance to hydrostatic head (m. of water): | 45.6m | ASTM D751 Method A Footnote #4 |
| Resistance to water migration under membrane: zero leakage | 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 | Footnote #4 |
| | cm ³ /cm ² /sec. | |
| Cycling over 38.1mm joint: | No deterioration 2000 cyc. | Footnote #2 |
| Cycling over 6.4mm crack: | No deterioration | Footnote #3 |
| Installation Temperatures: | -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 a life expectancy measurable in the thousands of years.

Footnotes:

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

Equus Industries Ltd
PO Box 601
Blenheim
Phone: 03 578 0214 Fax 03 578 0919
Email: admin@equus.co.nz
Web: www.equus.co.nz

© **Equus Industries Ltd**
Edition 1
July 2006