

TIKI HYDROSEAL-PL



HDPE Geomembrane

DESCRIPTION

TIKI HYDROSEAL-PL is flexible high density polyethylene (HDPE) geomembrane manufactured by flat sheet extrusion process using the highest quality 100% virgin resin specifically formulated and used in applications that require excellent chemical resistance and endurance properties.

TIKI HYDROSEAL-PL by nature is relatively impermeable thus providing a barrier to the movement of water and fluids.

ADVANTAGES

- Superior seal against even the most toxic substances.
- Excellent chemical resistance property against sea water, dissolved salts, acids, bases, various chemicals, water etc.
- Does not undergo decomposition by atmospheric temperature and moisture.
- Superior mechanical strength.
- Good resistant to root penetration.
- Superior weldability – speedier installation.
- Good tear and puncture resistance.
- High elongation and flexibility – conforms to irregular contours and offer excellent interface friction and tolerance to differential settlement.
- Good resistance to thermal cycles – retains its property under wide temperature range.

USES

TIKI HYDROSEAL-PL is designed to control seepage and conserve water by lining:

- Water conveyance structures.
- Artificial lakes and ponds.
- Garden pools and fish lakes.
- Irrigation channels in agricultural lands.
- Fire water holding ponds.
- Canals.

- Reserve water storages.
- Golf course water holes.
- Containment ponds.
- Leach pads.
- Floating covers.
- Methane barriers.
- Landfills.

TIKI HYDROSEAL-PL is also suitable for use as superior damp proofing geomembrane under the concrete slabs at grade level or below grade level, lining earth fills for retaining walls and basement walls, under foundation footings and grade beams, vapour barrier retarder lining.

APPLICATION INSTRUCTIONS

The substrate to be lined must be sound. The sub-grade should be well compacted (90-95% of Proctor optimum value), smooth free from pockets, holes, ruts, discontinuities, sharp angular materials etc.

The prepared base shall be free of irregularities, protrusions, standing water, loose soil and abrupt changes in grading, weed roots and vegetation etc., that may damage the HDPE Liner. If required, anti-weed treatment to the sub-grade shall be done to discourage the weed growth under the HDPE Liner.

Provision shall be made for easy under drainage to prevent build-up of hydrostatic pressure due to increase in ground water table or water accumulation in surrounding strata.

Provision shall be made to vent the earthen sub-grade with pipes for easy evacuation of bio-gas under the HDPE Liner.

TIKI HYDROSEAL-PL can be installed using loose laid method over the required area.

We recommend that, the installation should be carried out by a skilled applicator having prior experience with HDPE geomembrane application, to realize a perfect and very careful application in any situation. The correct assembly of the sheet must be achieved by hot air weld equipment specifically wedge welder or by using PVC / Polyethylene tape.

It is advisable to carry out some sample welding for the adjustment of temperatures of welding machines before starting installation operations.

It is compulsory to make sure that the overlapping joints are cleaned and dry free from oil and grease.

INSTRUCTIONS

To avoid compatibility issues with other materials and puncture damage, a layer of ≥ 300 gsm geotextile in polypropylene DANOFELT PP must be interposed as separating layer, between the **TIKI HYDROSEAL-PL** and the substrate.

PROPERTIES

Property	Average Values		Test Standard
	1.0 mm ($\pm 10\%$)	1.5 mm ($\pm 10\%$)	
Thickness	1.0 mm ($\pm 10\%$)	1.5 mm ($\pm 10\%$)	ASTM D5199
Density	≥ 0.940 g/cc	≥ 0.940 g/cc	ASTM D792
Colour	One side blue & Other side black	One side blue & Other side black	Visual
Tensile Strength at Break, L/T	≥ 28 kN/m	≥ 43 kN/m	ASTM D6693 Type IV
Elongation at Break, L/T	≥ 700 %	≥ 700 %	ASTM D6693 Type IV
Tensile Strength at Yield, L/T	≥ 15 kN/m	≥ 23 kN/m	ASTM D6693 Type IV
Elongation at Yield, L/T	≥ 12 %	≥ 12 %	ASTM D6693 Type IV
Tear Resistance	≥ 125 N	≥ 187 N	ASTM D1004
Puncture Resistance	≥ 320 N	≥ 500 N	ASTM D4833
Dimensional Stability	$\pm 2\%$	$\pm 2\%$	ASTM D1204
Stress Crack Resistance (SP - Notched Constant Tensile Load)	≈ 500 Hrs.	≈ 500 Hrs.	ASTM D5397 (Appendix A)
Oxidative Induction Time Standard -OIT OR High Pressure -OIT	≥ 100 Minutes	≥ 100 Minutes	ASTM D3895 (at 200°C)
	≥ 400 Minutes	≥ 400 Minutes	ASTM D5885 (at 150°C)

SUPPLY

TIKI HYDROSEAL-PL is supplied in below roll sizes:

Thickness	1.0mm ($\pm 10\%$)	1.5mm ($\pm 10\%$)
Width	8.0 mtr. ($\pm 1\%$)	8.0 mtr. ($\pm 1\%$)
Length	210 mtr. ($\pm 1\%$)	140 mtr. ($\pm 1\%$)
Roll	1680 m ² ($\pm 2\%$)	1120 m ² ($\pm 2\%$)

STORAGE

TIKI HYDROSEAL-PL sheet must be stored above 5°C. Store under the shed & protect from extremes of temperature. Rolls must be stored in upright vertical position. Avoid stacking of rolls horizontally on their sides or in double stack position.

SAFETY PRECAUTIONS

As with all synthetic products, care should be taken during use and storage of **TIKI HYDROSEAL-PL**.

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TIKITAR DANOSA (INDIA) PRIVATE LIMITED

Tiki Tar Estate, Village Road, Bhandup (W), Mumbai - 400 078,
Maharashtra, India. T: +91 22 4126 6699

E: info@tikidan.in | W: www.tikidan.in

