

JUNIFOL – HDPE geomembrane

Geomembrane is manufactured only from technically selected, high quality grades of HDPE under carefully controlled proven extrusion technology. In addition, the Geomembrane is stabilized against UV radiation. Geomembranes withstand the effects of chemicals, acid, alkaline and salt solutions. The Geomembrane is not affected by mildew and microorganisms. Furthermore, the Geomembrane can not be penetrated by the roots from surrounding vegetation. The quality of drinking water is not affected by the use of Geomembrane.

Geomembrane is manufactured in accordance with the company ISO 9001 quality system procedures.

Applications: *Bottom seals for communal landfills *Capping of communal landfills *Cesspools/tanks used to retain industrial and agriculture waste waters *Insulation of reserve tanks foundations *Insulation of car parks, petrol station, motorways to prevent groundwater contamination *Protection against leakage of water from lakes, seas, river slopes, river canals, drinking water tanks and utility water tanks *Irrigation canals, weir and dam insulation *Insulation of tunnels, bridges, viaducts etc. *Insulation for construction industry*

As HDPE Membrane has ionic translocation capability this welding will be fully seamless and the translocation of ions will make HDPE Membrane a hundred percent insulated and waterproofed.

To join sheets of Geomembrane together this is easily achieved by any of the following proven methods, hot wedge, hot air, extrusion welding.

| PROPERTY | TEST METHOD | NOMINAL VALUES | | | | | | |
|-------------------------------------------------------|--------------------------|----------------|-------|-------|-------|-------|-------|-------|
| Thickness (mm) | DIN 53 353, ASTM D 751 | 0,6 | 0,75 | 1,00 | 1,5 | 2,00 | 2,5 | 3,00 |
| Density (g/cm ³) | ISO 1183, ASTM D 1505 | 0,94 | 0,94 | 0,94 | 0,94 | 0,94 | 0,94 | 0,94 |
| Tensile properties (length crosswise) | EN ISO 527-3, SPECIMEN V | | | | | | | |
| - Strength at Break (N/mm ²) | | 26 | 26 | 30 | 30 | 30 | 30 | 30 |
| - Strength at Yield (N/mm ²) | | 19 | 19,5 | 19,5 | 19,5 | 19,5 | 19,5 | 19,5 |
| - Elongation at Break (%) | | 500 | 600 | 800 | 800 | 800 | 800 | 800 |
| - Elongation at Yield (%) | | 11 | 11 | 11,5 | 11,5 | 11,5 | 11,5 | 11,5 |
| Tear resistance Graves (N/ mm ²) | DIN 53 515, ASTM D 1004 | 90 | 110 | 150 | 200 | 300 | 350 | 400 |
| Puncture resistance (kN) | EN ISO 12 236 | >2 | >2 | >3 | >4,4 | >5,7 | >6,0 | >6,0 |
| Puncture resistance (N) | FTMS 101 C, Metod 2065 | 130 | 220 | 330 | 430 | 600 | 750 | 800 |
| Dimensional Stability (each direction) 120 °C/hr. (%) | DIN 53 377 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| Performance under biaxial tensile load (%) | DIN 53 861 | 15 | 20 | 20 | 20 | 20 | 20 | 30 |
| Carbon black content (%) | ISO 6964, ASTM D 1603 | 2,5 | 2,5 | 2,5 | 2,5 | 2,5 | 2,5 | 2,5 |
| Carbon Black Dispersion (Grad) | ISO 11 420 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Environmental Stress Crack Resistance (hrs) | ASTM D 1693, Cond. B | >2000 | >2000 | >2000 | >2000 | >2000 | >2000 | >2000 |
| Low temperature Brittleness (°C) | DIN 16 726 | -40 | -40 | -40 | -40 | -40 | -40 | -40 |
| | ASTM D 746, Cond. B | | | | | | | |
| Oxidative induction Time (min) | ISO 10 837 | 80 | 80 | 80 | 80 | 80 | 80 | 80 |
| Water absorption (%) | ISO 1269 | <0,04 | <0,04 | <0,04 | <0,04 | <0,04 | <0,04 | <0,04 |
| Melt Flow Index 190 °C/5kg (g/10 min.) | ISO 1133 | 0,6 | 0,6 | 0,6 | 0,6 | 0,6 | 0,6 | 0,6 |

Junifol HDPE geomembrane is available in the width 5.10m

Above mentioned data are of informative character only