Rhinoplast Hydrocarbon Barrier

Data Sheet

Description

Hydrocarbons are colourless gases formed as a by-product of decomposing organic matter. It is crucial that when gas protection is required, the site conditions, design and application are all taken into consideration to provide an impermeable membrane capable of surviving installation and subsequent traffic, to protect the most valuable asset " the building" against harmful gases that can cause future problems.

Rhinoplast Hydrocarbon Geomembrane is a high quality, high density polyethylene (HDPE) produced from specially formulated, proprietary virgin polyethylene resin designed specifically for flexible geomembrane applications.

Rhinoplast Hydrocarbon Geomembrane has outstanding chemical resistance, mechanical properties, environmental stress crack resistance, dimensional stability and thermal ageing characteristics. The membrane also has excellent resistance to UV radiation and is suitable for exposed conditions.

Uses

- Suitable for use on Hydrocarbon contaminated sites
- Excellent resistance to chemicals and UV radiation
- Excellent weld characteristics
- Can be taped (Consult technical department)
- Very high resistance to puncture and tear
- Low permeability to Hydrocarbon gases
- Available 5.9m wide (Consult separate data sheet)
- Compatible with vented systems

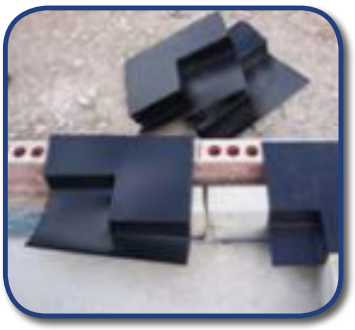
Installation Details

Rhinoplast Hydrocarbon Geomembrane is designed to exhibit superior welding properties, therefore, we recommended factory welding or on-site welding methods of jointing when the membrane is to be installed below a ground floor construction.

Application Guidelines

Rhinoplast Hydrocarbon Geomembrane is designed to exhibit superior welding properties, therefore, we recommend factory welding or on-site welding methods of jointing when the membrane is to be installed below a ground floor construction.

Although the membrane is a very robust material, it is advised that it should be laid on a blinded or smooth surface allowing adequate overlap for jointing between the sheets and avoiding bridging i.e areas of unsupported membrane. A final floor covering should be installed above it and care should be taken to ensure the membrane is not damaged prior to this. Inspect for damage and repair tears/holes with a piece of membrane sealed down with double sided tape and secured down with lap tape. Seal onto gas resistant DPC to maintain integtrity. In certain applications, where the membrane is to be installed above a suspended in-situ concrete slab or block and beam suspended floor, the sealing of the laps can be achieved using the Rhinoplast jointstrip system. In these instances, Jointstrip should be applied approximately 50mm from the edge. The next width of Rhinoplast Hydrocarbon Geomembrane should be then overlapped. For effective protection, all laps must be a minimum of 150mm and the joint should be secured with gas resistant Girth Jointing tape, a single sided tape which provides added security against any potential leakage paths and protects the joint from peeling at the time of the concrete pour. Always ensure that the membrane is clean, dust free and dry at the time of jointing. Rhinoplast Hydrocarbon Geomembrane and ancillary components must be installed in accordance with the recommendations of Building Research establishment BRE 414 "Protective measures for housing on gas contaminated land", Ciria Report 149 "Protecting Development from methane", together with codes of practive CP102 and BUS 8102. To avoid slip or shear planes, it is not recommended to take membranes through the wall. In order to provide a continuous barrier across the cavity, gas resistant DPC should be sealed to the membrane, taken through the blockwork, up the wall and incorporated below the damp proof course on the outer leaf. Gas resistant DPC should be installed in accordance with BUS 8215: 1991, BUS 8000: Part 3, 1989 and BUS 5628: Part 3: 1985. All horizontal DPC'S must be bedded on both sides with fresh mortar. All DPC's must project through the full width of the wall, including any externally applied rendering and project 5mm beyond the finished external face.



Technical Data

Property	Method	Declared Value
Thickness	PN-EN 1849-2	1.0(mm) +/- 10% 2.5, 2.65, 5, 5.3 (m) +/-3%
Width	PN-EN 1849-2	
Water Permeability	EN 14150	$<10^{-6}$ (m3 m-2 day-1)
Resistance to static puncture	EN ISO 12236	>2.41 (kn)\70,3(mm) test uncertainty 0,04
Gas permeability coeffiecient - methane	ASTM D 1434	<6, $13x10^{-18}$ (m2pa-1s-1) test uncertainty 0,46 10^{-18}
Gas flow rate - methane	ASTM D 1434	<633 (cm3m-2mpa-1day-1) test uncertainty 47
Strength at maximum elongation MD/TD	EN ISO 527	>24,7\21,9(mpa) test uncertainty 0,2\02
Elongation at break MD/TD	EN ISO 527	>9,1\11,9(%) test uncertainty 0,2\03
Tensile Strength MD/TD	EN ISO 527	>29,6\28,8(mpa) test uncertainty 0,7\08
Relative Elongation MD/TD	EN ISO 527	>868\827(%) test uncertainty 10\13
Resistance to weather conditions, change in strength MD/TD	PN EN 12224	-4,4\-7,3(%)
Resistance to oxidisation change in strength MD/TD	EN 14575	-8,8\-2,4(%)
Stress cracking resistance	ASTM 5397-99	>200(h)
Resistance to liquid chemicals, basic test 1 week 23degC change in strength MD/TD	PN-EN ISO 175	-3,2\-4,1(%)
Hazardous Substances		Does not contain hazardous substances
Certification Of Hygiene		HK\W\0199\01\2009 valid until 13/05/2014

CE

EN 13491 EN 13492
EN 13493 EN13361
EN 13362

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