



Protection



Reinforcement



Drainage

## 0.6MM HIGH DENSITY POLYETHYLENE IMPERMEABLE GEOMEMBRANE

HDPE 0.6 mm - is a mono layer, high-density polyethylene membrane specifically designed and manufactured to perform as a robust waterproofing barrier protection system, which is suitable for use in various demanding geomembrane applications such as SUDS, root barrier, waterproofing and radon protection and permeable paving. HDPE 0.6 mm is a fully weldable, category 2 attenuation grade liner fully conformant to C753 and BS7533-13 and is CE marked for use in the following application areas: EN13967 (A/T) HDPE 0.6 mm provides resistance to root penetration from invasive species, including (but not limited to): Japanese Knotweed, Bamboo, Mustard Seed, meadow Grass, Ivy, Hybrid poplars, Willow, Elm, Maple, Mare's Tail, ground creeping plants, edible plants and aquatic plants.

### KEY ATTRIBUTES

- ✓ Protection - Stress reduction layer to prevent or reduce damage.
- ✓ Reinforcement - Resists stresses or reduces deformations.
- ✓ Drainage - Collects and transports fluids within its thickness.
- ✓ Conforms to BS 7533-13 and "Code for sustainable homes 2006"

### APPLICATIONS

- ▶ Ponds
- ▶ Lagoons
- ▶ Anaerobic digestion ponds
- ▶ Gas barrier
- ▶ Hydrocarbon barrier
- ▶ Swales
- ▶ Attenuation tanks
- ▶ Root protection barrier

### FUNCTIONS

- ▶ Protection
- ▶ Reinforcement
- ▶ Drainage



## APPLICATION

HDPE 0.6 mm is a robust weldable geomembrane suitable for attenuation tank encapsulations, porous sub-base installations, containment and cut-off trenches, structural waterproofing. HDPE 0.6 mm is a chemically inert membrane offering designers and specifiers a range of critical properties that meet the needs of today's demanding geomembrane applications including high water table sites. HDPE 0.6 mm can be fully welded where required.

## SUDS

Every potential major development in the UK is examined for the risk of flooding following (1:100) storm events. Sustainable drainage systems (known as SUDS) offer an alternative approach to traditional drainage. SUDS effectively manage drainage at source and aim to detain runoff and release it slowly into water courses. The 'Code for Sustainable Homes 2006' uses a sustainable rating system

that helps designers' and builders' choice of development and also aids home buyers' selection of home. Category 4 'Surface water run off' mentions that the added points will be scored if an attenuation system is used. HDPE 0.6mm, used in conjunction with an underground storm water system, increases the development's sustainable rating.

## ADDITIONAL SYSTEM COMPONENTS

SNW40 - non-woven geotextile protector of use following HDPE 0.6 mm installation to protect the membrane from damage against backfilling. Typically used in attenuation tank encapsulation, SNW40 geotextile is a CE marked BS7533-13 and C753 conformant protection grade textile.

HDPE 0.6mm Top Hat Unit - preformed pipe sleeve unit for sealing around pipe penetrations MultiTrack SNW40 non-woven geotextile protector for use following HDPE 0.6mm installation to protect the membrane from damage against backfilling. Typically used in attenuation tank encapsulation.

## INSTALLATION

HDPE 0.6mm should be installed on a blinded or smooth surface, free from sharp protrusions (typically maximum permissible particle size in direct contact with the membrane should be <10mm). Avoid areas of unsupported membrane. Where required, adequate protection should be applied over the membrane to prevent damage after installation. HDPE 0.6mm exhibits superior welding properties making it ideal for on-site welding of joints.

## STORAGE

Store in a clean and dry environment, with rolls stacked no more than 5 units high. HDPE 0.6mm is classified as non-hazardous. It is chemically inert and is not affected by acids and alkalis that may be present in the subsoils. The material is not recommended for uses where it will be exposed to long periods of outdoor weathering such as exposure to ultraviolet light that will embrittle the product. Care should be taken to avoid accidental damage when handling the membrane on site



PROPERTIES	TEST METHOD	UNIT	VALUE
Thickness	BS EN 1849-2	mm	0.6
Width	BS EN 1849-2	m	2.5 or 5.1
Length	BS EN 1849-2	m	50 or 100
Density	Length	g/cm <sup>2</sup>	0.939
Resistance to roots	Length	-	Impenetrable
HYDRAULIC PROPERTIES			
Permeability to liquids	EN 14150	m <sup>3</sup> / (m <sup>2</sup> .d)	10 x 10 <sup>-6</sup>
Water tightness (60 kPa)	EN 1928	-	Pass
MECHANICAL PROPERTIES			
Resistance to static load	EN 12730-B	Kg	>20
Tensile Strength (MD)	EN 12311-2(A)	N/50mm	500
Tensile Strength (CMD)	EN 12311-2(A)	N/50mm	500
Tear Strength (MD)	EN 12310-1	N	450
Tear Strength (CMD)	EN 12310-1	N	500
Resistance to impact	EN 12691 (A)	mm	>2000
Shear resistance of joint	EN 12317-2	N/50mm	Tape 400 / Welded 400
DURABILITY AND CHEMICAL RESISTANCE			
Resistance to elevated temperature	EN 1296	-	Conforming
Resistance to chemicals	EN 1847	-	Conforming
GAS PERMEABILITY			
Radon permeability	K124/02/95	m <sup>2</sup> /s	2.0 x 10 <sup>-12</sup>
COMPLIANCE AND CERTIFICATION			
CE Mark - EN13967:2012 (A/T)			
BS7533-13 and 'Code for Sustainable Homes 2006' Conformant			
Conforms to CIRIA C697 and C753 as an Attenuation Membrane			

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