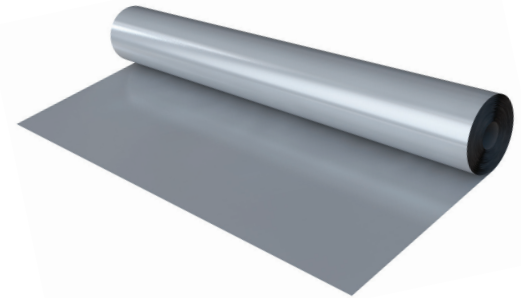


Geomembranes are impermeable liners used in sustainable drainage systems (SuDS) to form water tight tanks. The membrane used depends on a risk assessment of the site and the ground and groundwater conditions.



## Applications

The Geomembrane is suitable for use in a range of applications including residential, industrial estates, swales, sports pitches, car parks, roofs, basements, pedestrian areas and rainwater harvesting.

## Key Benefits

- Heavy duty polypropylene membrane
- Used to create a water-tight construction and minimise risk of subgrade softening
- 100% recyclable

## Performance

A robust, heavy duty geomembrane resistant to puncture. Geomembrane combines excellent chemical resistance with low flexural modulus to provide a malleable, flexible membrane suitable for non-smooth surfaces and factory pre-fabrication to optimise on-site installation. Jointing shall be formed using fusion or extrusion bead welding in accordance with manufacturing recommendations. Double-sided tape may be used when specifically requested by the contractor.

## Installation

For retention and attenuation applications the units need a sealed geomembrane to prevent the release of water and prevent the ingress of groundwater. All joints should be sealed, using proprietary techniques recommended by the manufacturer. Advice on seam testing procedures as given in CIRIA SP 124:1996. Barriers, lines and cover systems for containment and control of land contamination.

## Technical Support

Detailed guidance and assistance is available. For further information, please contact our Technical Team on +44 (0) 1509 615 100 or email [civils@polypipe.com](mailto:civils@polypipe.com) or visit [www.polypipe.com/civils-technical-hub](http://www.polypipe.com/civils-technical-hub)

ELEMENT	VALUE	TEST METHOD
<b>PHYSICAL PROPERTIES</b>		
Thickness mm $\pm 10\%$	1.0	ASTN D-751
Density g/cm <sup>3</sup> minimum	0.9	ASTM D-792
Tensile stress at break minimum N/mm <sup>2</sup>	18	ASTM D-638
Elongation at break %	>700	ASTM D-638
Puncture resistance minimum N	150	FTMS 101C method 2065
Tear resistance minimum N	60	ASTM D-104
Dimensional stability % change max	$\pm 2.0$	ASTM D-1204 1hr at 100°C
Stress crack resistance	100%	ASTM 5397
Volatile loss 5% loss max	0.2	ASTM D-1203 method A
Ozone resistance	No cracks	ASTM D-1149
Carbon black content	2-3%	ASTM 1603
Moisture vapour g/m <sup>2</sup> /day	<0.1	ASTM E96
Friction angle (non woven Geotextile)	21°	Shear box
Methane permeability	0.11 g/m <sup>2</sup> /day/atm	European standard
Methane transmission rate	1.8 x 10 <sup>-9</sup> m <sup>3</sup> /m <sup>2</sup> /s/atm	BRE
Permeability coefficient	1.8 x 10 <sup>-12</sup>	
Core material	Polypropylene	

## ROLL OPTIONS

CODE & DESCRIPTION	DIMENSIONS
PV1301201 Geomembrane Roll	1m x 105m
PV1301202 Geomembrane Roll	2m x 105m
PV1301203 Geomembrane Roll	3m x 105m
PV1301204 Geomembrane Roll	4m x 105m
PV1301205 Geomembrane Roll	5m x 105m
PV13011 Double Sided Tape	100mm x 15m

Permavoid Geomembrane can be utilised in these SuDS techniques

TECHNIQUES													
Blue-Green roofs	Podium Decks	Trees	Sports Pitches	Cycle Paths	Permeable Paving (sub base & podium)	Bioretention & Rain Gardens	Attenuation Storage Tanks	Infiltration	Swales	Filter Drains	Detention Basins	Ponds & Wetlands	Filter Strips
✓	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	

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