

Technical Data Sheet

PLATINUM GT8 GEOTEX MEMBRANE

8mm Stud Twin Layered External Drainage Membrane



Description:

Platinum GT8 GeoTex Membrane is a Twin-Layered Cavity Drain Membrane, designed to manage water to the land drain, relieving pressure from the structure.

The dual layers comprise of a High Quality 8mm Studded HDPE Membrane and a Non-Woven Geotextile manufactured from UV stabilised, high tenacity, virgin polypropylene fibres that have been mechanically entangled to provide high strength, high extensibility, high loft and excellent abrasion characteristics.

The Geotextiles are also thermally treated to reduce thickness while maintaining excellent mechanical properties.



Benefits:

- Suitable for use with all Construction Types
- Drains off water before reaching the Waterproof Coating
- Easy Handling, Rapid Installation
- Rugged, Durable Construction with Thermal Insulation Benefits
- Filtration Layers prevents silting-up
- High Compressive Strength and Drainage Capacity
- Combined Drainage and Protection Board
- Allows Back-filling with Excavated Earth
- Withstands Stress and Movement in the Background.

Product Uses:

- Isolate and protect external structure from surround soil
- Helps relieve hydrostatic pressure from the face of the structure
- Ideal for retaining walls, podium decks, external tanking and green roof applications.

Design Considerations:

- Build new structures to the requirements of BS 8102:2009. Further guidance is available in CIRIA Report 139 - Water Resisting Basements.
- Use Waterbars at construction joints as part of an effective multi-staged approach to the waterproofing.
- Carry out a geotechnical survey to evaluate soil characteristics and groundwater conditions in accordance with BS 8004. Great care should be taken when considering waterproofing that requires the permanent removal of the ground water to be effective. See BS 8102:2009 Section 5 for further guidance.
- When used as a drainage membrane, Platinum GT8 GeoTex Membrane should only be used to sloping sites where ground water is diverted around and drained away safely downhill of the structure.
- The land drain or perforated pipe to the base of an externally applied drainage membrane should be maintainable and graded to an open outlet below the level of the lowest slab. If risk of surcharge exists a pumped back flow protection device should be used. See BS 8102:2009 Section 6.4 for further information.
- Land drains or perforated pipes should be maintainable. Include accessible jetting ports at regular intervals with at least one jetting port to each elevation.

Substrate Preparation:

Prior to application of Platinum GT8 GeoTex Membrane, consideration needs to be given to the soil composition and at what depth the water table is. We would recommend this investigation be carried out by a Geotechnical Engineer to determine the potential risks.

Ensure all surfaces are free from any sharp protrusions and in reasonably sound condition. Using Universal Mortar, provide a triangular mortar fillet at any point of the wall where it is necessary to smooth out angles between the vertical and horizontal elements of the structure.

Installation - Vertical Surfaces:

Apply a suitable Liquid Applied Waterproofing Membrane to walls in accordance with the product data sheets. If the Liquid Waterproof has been applied below the raft, link the raft and wall membrane to provide continuous waterproofing.

Apply Platinum GT8 GeoTex Membrane horizontally. The membrane is held to the wall by the back-fill. Do not use fixings through the drainage layer as this will also perforate the waterproofing membrane. Use Platinum Waterseal Brick Plugs as a final fix to the top of the installation ensuring that this is above external ground level. Using temporary means to hold the membrane in place whilst backfilling, overlap subsequent sheets of Platinum GT8 GeoTex Membrane, ensuring that the filter fabric of the next sheet overlaps the previous studded core - a section of filter fabric is separated from the drainage core for this purpose.

Seal the edges of sheets using the flange at the edge of each sheet using Platinum Waterseal Tape or Platinum Overtape.

Place a slotted drain to the base of the foundation so that the top of the drain is below the top of the internal slab level. Place the drain within a bed of clean graded 20mm stone surrounded by a sheet of Geotextile filter fabric ensuring that enough Geotextile is available to lap to the Platinum GT8 GeoTex to give continuity of the filter fabric.

NOTE: If Platinum GT8 GeoTex is used below the raft also, the slotted pipe will need to be lowered so it is below the horizontal membrane.

Ensure the slotted pipe drains freely to a safe collection point that is downhill of the structure.

Place the Geotex filter fabric to the face of the membrane so that it is held in place by the back-fill.

Use Newton GeoStrip Capping Profile to the top edge of the membrane to prevent debris and back-fill from entering the cavity between the drainage core and the filter fabric

Carefully back-fill the excavation. If graded stone is used, a protection board is not required but the stone should be placed in controlled layers of no more than 600mm so as to prevent slump to the membrane. If the removed soil is re-used, ensure that it does not contain sharp stones and ensure that the soil is compacted every 600mm. If sharp stones exist within the re-used soil a protection board will be required.

Installation - Under The Concrete Raft:

Lay Platinum GT8 GeoTex in adjoining strips above the hard-core. Sand blinding is not required. Extend Platinum GT8 GeoTex past the footprint of the raft by 500mm and continue to the slotted drain surrounded in clean graded stone. Overlap and tape sheets with Platinum Waterseal Tape.

The Liquid Waterproofing Membrane should be laid above the Platinum GT8 GeoTex as the primary waterproofing membrane, prior to the placing of the concrete raft.

Limitations:

Platinum GT8 GeoTex is a drainage membrane, not a waterproofing membrane. Waterproofing of the structure should be achieved with a High Quality Primary Liquid Waterproofing Membrane.

Platinum GT8 GeoTex should not be used to de-water permanently high water levels. See BS 8102:2009 Section 5 for further guidance.

Backfill should be compacted every 600mm to prevent linear shear of the filter fabric from the drainage core if no protection board is used

Do not fix through the waterproofing membrane to fix the drainage membrane.

Finishing:

We advise that the drainage pipes are checked to ensure they will carry water away from the footings either passively (taking advantage of natural gradients) or actively, using a sump and pump.

Pipes should have a jetting detail so pipework can be flushed at regular intervals.

Back-filling should be carried out with care to minimise the risk of physical damage to the membrane and prevent tears around the fixings.

Date: October 2018

Technical Data:**Technical Characteristics:**

Technical Data	Result	Test Standards
Material	HDPE & Geotextile Fabric	N/A
Total Unit Weight	0.61 kg/m ²	N/A
Total Sheet Thickness	0.97	EN 149-2
Stud Height	7mm	N/A
Colour	Black	N/A
Water Tightness (60kPa; 24H)	Pass	EN 1928
Working Temperature	-50°C to +80°C	N/A
Softening Temperature	126°C	N/A
Tensile Strength MD	416 N	BS 12311-2
Tensile Strength CD	488 N	BS 12311-2
Resistance to Static Loading	>20Kg	BS 12730
Compressive Strength	180 kN	BS EN ISO 25619-2
Reaction to Fire	Class E	BS EN 13501-1 : 2007+A1:2009
Type of Application	Type V	N/A
Life Expectancy	Lifetime of Structure	

Geotextile Mechanical Properties:

Technical Data	Result	Test Standards
CBR Puncture Resistance	HDPE & Geotextile Fabric	EN ISO 12236
Tensile Strength (M)	8 Kn/m	EN ISO 10319
Tensile Strength (CMD)	8.5 kN/m	EN ISO 10319
Tensile Elongation (MD)	50%	EN ISO 10319
Tensile Elongation (CMD)	60%	EN ISO 10319
Dynamic Perforation	35mm	EN ISO 13433

Technical Data (Continued):

Geotextile Hydraulic Properties:

Technical Data	Result	Test Standards
Pore Size (O 90)	100µm	EN ISO 12956
Permeability (H 50)	79 l/m ² /s	EN ISO 11058

Geotextile Physical Properties:

Technical Data	Result	Test Standards
Mass Per Unit Area	0.11 Kg/m ²	EN ISO 9864
Thickness	0.52 mm	EN ISO 9863-1

Packaging:

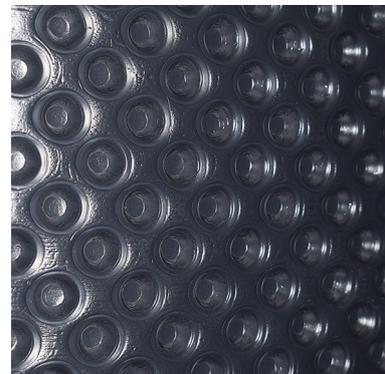
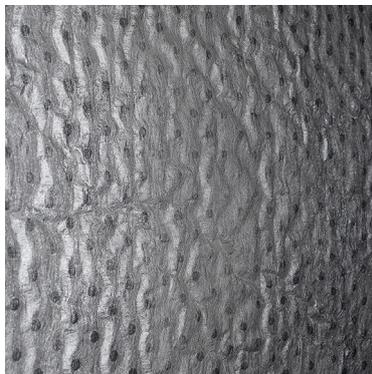
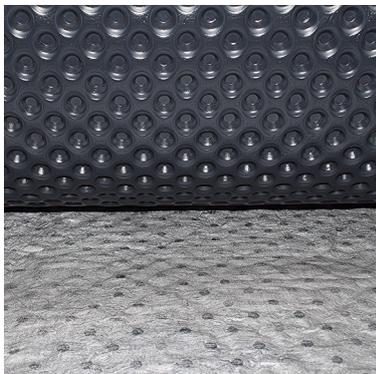
Supplied in (W) 2.0M x (L) 20M - (40M²) Rolls

Storage:

Store in an upright position, under cover and away from high temperatures and open flames.

Shelf Life:

The lifetime of the structure, when stored and installed in line with the datasheet recommendations.



Date: October 2019