

**twistfix®**



# Geotex Membrane

Cavity drain membrane for  
foundation waterproofing



# Twistfix Geotex Membrane

- Suitable for use with all construction types.
- Drains off water before reaching the waterproof coating.
- Combined drainage and protection board.
- Easy handling, rapid installation.
- Rugged, durable construction with thermal insulation benefits.
- Filtration layer prevents silting-up.
- High drainage capacity.
- Allows back-filling with excavated earth.
- Withstands stress and movement in the background.



Twistfix Geotex is a twin-layered cavity drain membrane designed to manage ground water to the land drain, relieving pressure from the structure.

In below-ground waterproofing applications, the primary function of Twistfix Geotex is to divert water away from the structure. It can act as a barrier against ground gases, like Radon and methane.

#### **Geotex comprises:**

##### **Layer 1:**

The cavity membrane with 6mm studs giving superb strength and drainage capacity :

##### **Layer 2:**

A geotextile mat to prevent soil particles blocking the cavity and or drains.

In most cases Geotex is designed to be used with Twistfix Epoxy Damp Proof Paint; a paint-on DPM that forms a primary foundation waterproof coating. In all cases it is essential that Geotex is installed in conjunction with a perforated ground drain acting as a conduit for removal of drained water (see separate data sheets).

## Typical Use

Twistfix Geotex is typically used to isolate and protect the structure from the surrounding soil and relieve hydrostatic pressure by promoting the flow of ground water away from the face of the structure. Twistfix Geotex provides excellent protection from root penetration, and can also increase the structure thermal insulation.

Typical installations include external tanking, retaining walls, podium decks, and green roof applications.

## Durability

Subject to normal conditions of use Twistfix Geotex provides effective protection to the primary waterproofing system, against backfill, and will promote of water drainage away from the building for the life of the structure.

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## Construction

### General

All construction should conform with Building Regulations, and British Standards in current use at the time of construction.

### Preparation

All surfaces should be clean, dry and free from contaminates before applying Twistfix Geotex membrane

## Application

Prior to applying the Twistfix Geotex membrane consideration needs to be given as to soil composition and at what depth the water table is, and we would recommend that an investigation be carried out by, a Geotechnical engineer to determine the potential risks.

An adequate capillary break will need to be installed under the reinforced slab, and we would recommend on of the Twistfix cavity drain membranes :

- Twistfix Baseline 8
- Twistfix Baseline 20
- Twistfix Slimline Floor

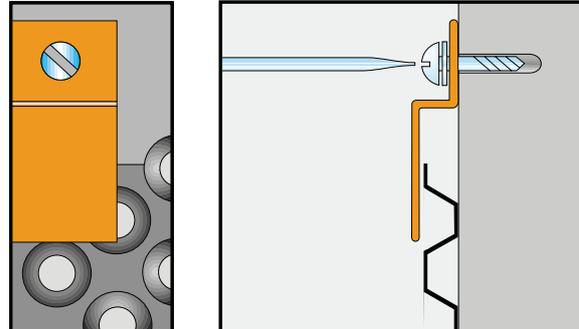
## General

Twistfix Geotex membrane should be applied to the outer face of the structure, with the geotextile filter fabric facing outwards. The sheets should be applied vertically with and secured with a Twistfix Mechanical Anchors, see Fig 2 on page 4.

## Ancillary Products

### Finishing Strips:

A rigid profiled edging strip fixed to the wall and finishing at or just above ground level to prevent rainwater and/or any soil or other material entering the drainage cavity.



### 10mm x 70mm Mechanical Anchors:

For fixing the Geotex to the foundation wall

### Twistfix Butyl RubberTape:

For sealing lap joints between adjoining sheets of Geotex

### Aquadrain:

60mm and 100mm





Fig 1: Position Membrane



Fig 2: Fix Membrane



Fig 3: Tape Joints



Fig 4: Fixing Membrane around corner



Fig 3: Capping Detail

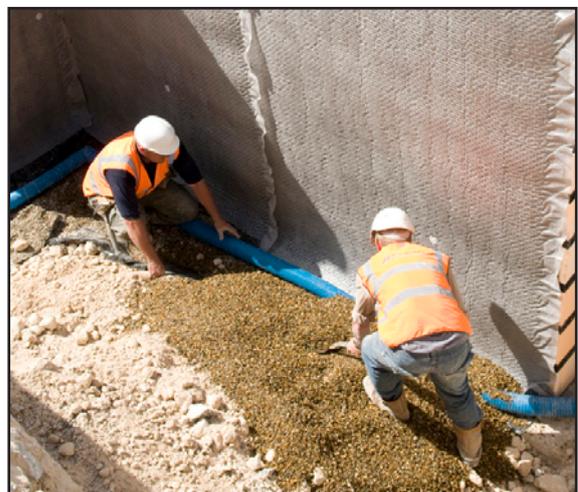


Fig 4: Land Drain

## Installation

Ensure surfaces are free from any sharp protrusions and in sound condition. Provide a 'bucket-handle' mortar fillet at any point of the wall where it is necessary to smooth out angles between perpendicular surfaces. Apply 2 coats paint-on damp proof membrane to full soil height in accordance with the Technical Data Sheet and allow to cure (24 hours minimum, longer in cold/wet conditions). Fix the Geotex to the wall near the top of the primary waterproofing layer using mechanical anchors at 150 mm centres (ensure the geotextile faces the soil). Crease the membrane to ensure a tight fit to internal and external corners and ensure fixings are installed on both sides within 100 mm of the corner.

Geotex can be applied vertically or horizontally as required. Ensure overlap joints between sheets of 450 mm vertical and 150 mm horizontal (the geotextile can be pulled back to allow studs to overlap). When fixing horizontally, place the lower sheet first. Use Twistfix Butyl Rubber Tape to seal joints.

Note: Taped joints are not designed to be waterproof against standing water therefore it is important to ensure all overlaps are flat and even and water in the drainage layer flows freely to the base of the wall.

Ensure the membrane extends to, or just below the level of, the ground drain pipe and the pipe is fully encapsulated in a granular infill and placed below footings/internal floor level.

## Finishing & Specification

Back filling should be carried out with care to minimise the risk of physical damage to the membrane and or tears around fixings. Prior to this stage it is advisable to check the drainage pipe will carry water away from the footings either passively (taking advantage of sloping ground) or actively (where the pipe directs water to a sump and pump which is routinely accessed for inspection and maintenance Note: The pipe must have a jetting detail so the pipe work can be flushed at regular intervals. (please contact Twistfix for further advice in this area).

In accordance with NBS J40 (Clauses 290/295/380 Flexible Sheet Tanking/ Damp Proofing).

Twistfix Geotex is a cavity drain membrane system meeting the requirements of BS 8102 – 'Waterproofing of structures below the ground'. BS 8102 recognises that type 'C' drained protection is the least likely to fail of all methods of structural waterproofing.

## Key Features:

- Highly efficient cavity drain membrane for foundation walls
- Welded-on geotextile layer prevents blockages
- Robust and durable construction to accommodate backfill to a depth of 10m
- Quick and easy to install



**Note:** Geotex drainage performance is dependent on water table levels. If the resting water table level rises above the drain level the cavity between the membrane and the wall will hold water and for this reason we recommend the primary paint-on waterproof coating is always applied to the foundation.

