

Geotex Membrane

Cavity drain membrane for
foundation waterproofing



Wykamol 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.



Wykamol 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 Wykamol 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 8mm studs giving ample 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 Technoseal DPM as a primary foundation waterproof coating. In all cases it is essential that Geotex is installed in conjunction with Aquadrain - a perforated ground drain acting as a conduit for removal of drained water (see separate data sheets).

Typical Use

Wykamol 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. Wykamol 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 Wykamol 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 Wykamol Geotex membrane

Application

Prior to applying the Wykamol 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 Wykamol cavity drain membranes :

- Wykamol CM8
- Wykamol CM20
- Wykamol Slimline Floorsel

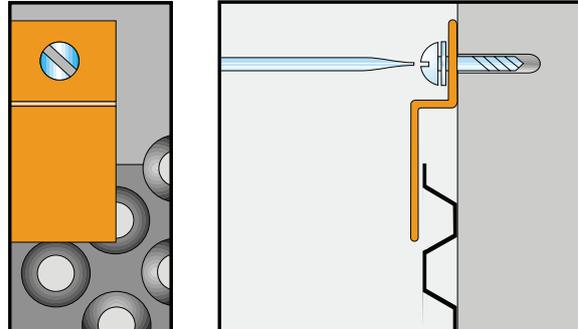
General

Wykamol 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 Wykamol Super plugs, see Fig 2 opposite.

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.



CM Plaster Plugs:

(70 mm) – 8 x 70 mm plugs with large heads for fixing the Geotex in place

Wykamol CM Tape:

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

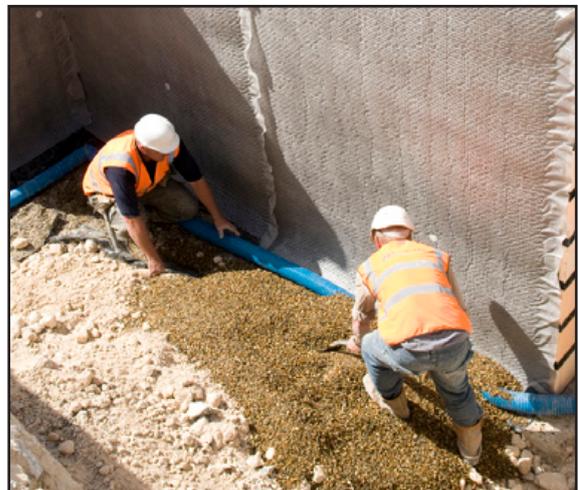


Fig 4: Land Drain

Installation

Ensure surfaces are free from any sharp protrusions and in reasonably sound condition. 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. Apply Technoseal DPM (2 coats) 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 CM Plaster Plugs 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 (as above) are installed on both sides set back not more than 100 mm.

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 Wykamol CM Tape to seal joints at overlaps.

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 Aquadrain 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 the Wykamol Group for further advice in this area).

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

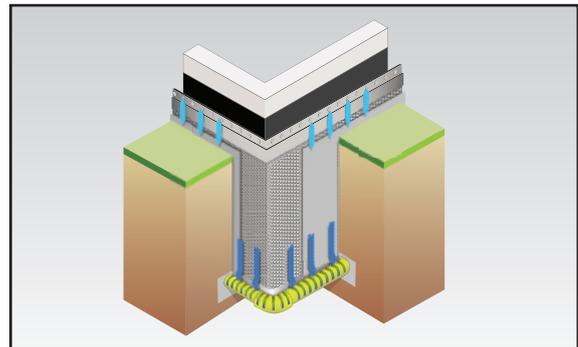
Wykamol Geotex is a cavity drain membrane system meeting the requirements of BS 8102 – 'Waterproofing of structures below the ground'. BS 8102 recognises that type 'C' drained protection is the least likely to fail of all methods of structural waterproofing.

Key Features:

- Allows backfilling with excavated earth.
- Resistant to chemicals found in the soil.
- Studded membrane with a welded geotextile for permanent bonding.
- Extremely strong, minimising the risk of damage when backfilling.
- Greater resistance to load and stress can be applied to a depth of 10 metres.
- Speed of installation.



Note: Geotex performance is dependent on water table levels. If the resting water table level rises above the drain level (e.g. when the drain capacity can not cope with severe conditions) the cavity between the slip membrane and the wall will hold water and for this reason we recommend the primary waterproof coating (Technoseal DPM) is always applied to the foundation. However, in some circumstances this may be optional i.e soil retaining boundary walls where some seepage may be acceptable under acute conditions.



Product Data

Material

Layer 1 - HDPE

Layer 2 - PP

Dimensions

2 x 20m 40m²

Weight

900 g/m² (22.5kg per roll)

Studs

Height 8mm, Spacing 1860 m²

Drainage

4.6 Lt/sec/m, 276 Lt/min/m,
16,600 Lt/hour/m

Permeability

Geotextile transmission
rate: 100 Lt/m²/sec

Strength Compressive:

250 kN/m² (25 tonnes/m²)

Temperature

Service Range -40°C to +80°C

Safety

Geotex and associated materials are not classified as hazardous according to current labelling regulations but please note that care is required when working below ground in confined spaces and when using drills/hammers etc. in these circumstances.

Technical Support

The information provided in this data sheet is intended to guide professional contractors and specifiers in the appropriate use of Wykamol Geotex and associated products to ensure a successful foundation waterproofing project. If any further advice is required please consult our Technical Department who will be pleased to answer your questions.



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