

Cavity Drain Membrane



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- Lightweight and quick to install
- Non-destructive to the structure
- Allow 'fast track' conversion
- Insulation and sound absorbing qualities
- Create dry, high quality environment

An introduction to basement conversions Basement conversions are increasingly popular and we have everything required to complete the conversion.

The key to success in any conversion project is to ensure the area is completely waterproof - which is where our expertise becomes invaluable.

With decades of experience in the market place we can supply everything you need to ensure a successful job. We have a complete range of treatments, waterproof membranes, sump pumps and drainage systems.

All this means is that once neglected dank and mouldy basements can be transformed into wonderful cosy living areas. Clearly, when working below ground the quality and durability of materials is extremely important, which is why we offer two systems backed up by Agrément Board Certification with a conversion good for the life of the building.

Whatever system you go for, our technical and sales staff will always be happy to help you create dry, habitable rooms out of formerly overlooked basements.

Why use cavity drain membranes

Polyethylene Cavity Drain Membranes are the ultimate solution to basement waterproofing. In an ideal situation, water pressure should be removed from the building by lowering the ground levels and diverting water away from the property.

As we all know, an ideal situation rarely occurs in the real world. Normally it is impossible to achieve the above due to a basement's very nature of being a subterranean room.

Cavity drain membranes create an envelope within the building on the negative side of water pressure allowing the natural drainage of ground water to enter the structure and be collected behind the system to be efficiently dealt with by providing a pre-designed drainage facility behind the finished surfaces.



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Why use cavity drain membranes continued

Traditionally structural waterproofing systems require the removal of plaster and render to prepare the wall surface for the application of the treatment.

This type of waterproofing relies totally on an adequate bond between the treatment material and the wall surface. This is destructive and causes distress, mess and damage to the building.

In many cases, Cavity Drain Membranes can be fixed directly on to existing surfaces using the special water sealed fixing plugs saving time, mess and money.

Traditional cement based systems are not vapour barriers and condensation problems can often be created by using these dense render type materials.

Cavity Drain Membranes are not only water impervious linings, they also provide an efficient vapour barrier, combined with added insulation qualities, this makes severe condensation unlikely.

Pressure created by water retaining systems such as cement based tanking inflicts stresses on a structure, which can cause additional problems.

These types of waterproofing systems will only have a limited life and can affect other rooms or adjoining property.

Cavity Drain Membranes are unaffected by being in continual contact with wet surfaces. They are also complete barriers against salt contamination.

Aggressive Sulphate, Nitrate, and Chloride salts are completely isolated from the internal finish surfaces.

Internal finishes to walls and floors can have added insulation performance. Correctly installed and with maintained drainage the Cavity Drain System should last for the life of the structure, providing peace of mind to the occupants.



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Membrane Range

Our range of cavity drain membranes are high quality waterproof basement tanking materials giving a wide choice of stud height (drainage capacity) and plaster finish (dry lining or wet plaster). For use on walls, floors, vaults and tunnels with minimal surface preparation required. Also suitable for external foundation waterproofing and to provide insulated dry lining for walls above ground level which may not be suitable for conventional plaster finishes.

Membranes are manufactured from high quality ('virgin') polymers HDPE - polyethylene and polypropylene mesh to the surface of plaster membranes - all giving extremely low vapour permeability and high resistance to salts etc. There is a wide choice of stud height (drainage capacity) and plaster finish (dry lining or wet plaster). For use on walls, floors, vaults and tunnels with minimal surface preparation required. Delta membranes are suitable for use in type 'C' (drained protection) structural concrete constructions in accordance with BS 8102:2009, Clause 3.2.4 when used as a sealed system.

Above ground the membranes can be used as a vented system.

The membrane is also suitable for external foundation waterproofing and insulated/dry lining for walls above ground level which may not be suitable for conventional plaster finishes.

The membranes are used in combinations to suit the site conditions. The CM Range is Agrément Board certificated and the K is our contract range. The fixing and jointing is carried out using special sealed plugs, tape, rope and flexible adhesive to seal the system.

Products

MS 20 is the highest drainage capacity membrane in the range. Commonly used on the floor/over site concrete where the large stud height is desired to maximize the potential removal of large volumes of water. MS 20 can either be installed using the Central Drainage Systems.

MS 500 is a medium capacity drainage membrane for floors and walls both above and below ground level. When used on basement floors it is recommended to optimise the flow of ground water towards the sump location. When used on walls the system will not accept plaster finishes directly to the surface of the membrane. Also available in clear.

FM is a low profile membrane (3 mm studs) specially designed for fast-track sealing of damp concrete at ground floor level - no need for extensive surface preparation normally required with liquid DPM systems (epoxies etc.) and no curing times before floor finishes can be applied. It may also be used on basement floors where the low stud height is critical to maintain ceiling clearance and special measures can be taken to ensure the floor drains freely via drainage channels.

When fixed to the walls above or below ground the membrane can have plaster finished directly applied. Above ground, the 3mm low stud height enables PT Slim Line Mesh to be used as a remedial re-plastering system following insertion of a DPC where it is necessary to match-up to retained plaster at higher levels. Alternatively, in walls severely affected by damp/salts to a high level.

PT LATH when fixed to the walls above or below ground the membrane can have plaster finished directly applied. Above ground, the 8mm low stud height enables PT Lath to be used as a remedial re-plastering system following insertion of a DPC where it is necessary to match-up to retained plaster at higher levels. Alternatively, in walls severely affected by damp/salts to a high level PT Lath can be used as a full-height damp proof membrane on walls.

SLIM LINE MESH when fixed to the walls above or below ground the membrane can have plaster finished directly applied. Above ground, the 3mm low stud height enables Slim line mesh to be used as a remedial re-plastering system following insertion of a DPC where it is necessary to match-up to retained plaster at higher levels. Alternatively, in walls severely affected by damp/salts to a high level Slim line mesh can be used as a full-height damp proof membrane on walls.

GEO DRAIN QUATTRO is a cavity drain membrane specifically for foundation waterproofing of new structures below ground. It can be used as a 'protection board' in association with a primary waterproofing layer as a stand-alone system (in well drained soils or where some seepage is permitted e.g. earth retaining walls).

The 9mm stud provides a double drainage layer on either side of the membrane (2.3 litres per sq. metre between wall and membrane) thereby reducing dramatically the risk of water seepage affecting foundations. On the outer layer the Geotextile membrane allows water to penetrate to the cavity drain layer but preventing the majority of the fines from the soil entering the system thus keeping the drainage operating efficiently.



MS500



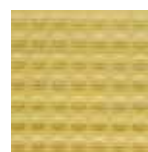
MS 500 Clear



MS 20



PT Lath



Slimline Mesh



Geo Drain

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Cavity Drain Membrane Range

Basement Waterproofing with is a means of achieving dry living space below ground without affecting the loads (water pressure) on walls and floors. However, it remains important that the basement to be tanked is structurally sound and stable (some minor vibration movement may be tolerated).

Also, for the system to work under severe water ingress it is essential that the cavity membrane drains to a suitable point (sump) where water can be removed. In order to select the best cavity drainage system (whether tanking internally or externally) it is recommended that the type of soil is assessed and this information incorporated in to other features of a full basement survey by a competent damp proofing surveyor (CSRT/CSSW qualified).

Above Ground, cavity drain membranes are ideal for use as open (ventilated) linings to isolate damp walls/floors especially where aggressive salts are present and/or for 'fast track' projects where long drying times (often associated with conventional plaster finishes on damp walls) are unacceptable.

On the outer layer the Geo Drain membrane allows water to penetrate to the cavity drain layer but preventing the majority of the fines from the soil entering the system thus keeping the drainage operating efficiently.



External drained waterproofing

When constructing a new basement, it is often normal practice to install the waterproofing on the "positive side" i.e. on the exterior wall of the basement.

Traditionally bituminous protection sheets or liquid asphalt products have been used for the waterproofing of new-build basements in this way. However, problems with adhesion, jointing, and temperature tolerance are often experienced with these types of product. For this reason, studded cavity drainage membranes are increasingly becoming the products of choice for the waterproofing of basements during the construction process, providing a watertight yet flexible barrier between the ground and the external wall.

External drained waterproofing for new build basements

Structures that are earth retaining can be damaged by moisture penetration from the outside or by water under hydrostatic pressure.

Cavity drain membranes are available as geocomposites to deal with such problems. They act as a waterproof drainage layer, and quickly remove the water to suitable drainage around the structure.

They prevent the build-up of hydrostatic pressure on the structure and filter the water via an integral polypropylene filter layer.

This prevents the fine ground particles from blocking the drainage facility and avoids de-stabilising the soil.

