

# AQUADRAIN ICD 8MM

## CAVITY DRAIN MEMBRANE

### DESCRIPTION

The CETCO 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 to provide insulated dry lining for walls above ground level which may not be suitable for conventional plaster finishes.

AQUADRAIN ICD membranes are suitable for use in type 'C' (drained protection) structural concrete constructions in accordance with BS 8102:1990, Clause 3.2.4.

AQUADRAIN ICD 8mm is a medium capacity drainage membrane (4 litres/m<sup>2</sup>) for floors and walls both above and below ground level. When used on basement floors it is recommended that perimeter drainage channels are provided to optimise the flow of ground water towards the sump location.

The recommended plaster finish for the above systems is dry lining on stud framing (timber or metal) fixed to CETCO MEMBRANE FIXINGS. Alternatively, plasterboard can be erected using 'dot and dab' methods using dab collars to provide a physical bond for the board adhesive. For floors, standard screeds can be applied (50 mm minimum) or T&G chipboard etc. (12 mm minimum, with absorbent layer for sound reduction).

### PREPARATION

When used in new construction the concrete slab must be laid in accordance with BS 8204-1:1999 to achieve a flat surface not deviating more than 5 mm from the underside of a 3000 mm straight edge. Unsound plaster, render or screed should be removed and surfaces made level (with

floors to the above tolerances) with a sand: cement mix (3:1 incorporating waterproofing additive). Leave all new works to dry thoroughly before AQUADRAIN ICD membranes are fixed.

In the case of walls suffering from mould or masonry fungi, remove surface contamination by brushing and apply a fungicidal wash prior to fixing membranes. If dry rot (*Serpula lacrymans*) is present in the walls this will require detailed assessment before proceeding.

Above ground level AQUADRAIN ICD membranes are designed to provide a damp proof lining to walls suffering from penetrating or rising damp and/or which are prone to condensation (as part of a wall insulation system). However, it is recommended where possible that all sources of moisture are alleviated at source (e.g. by providing a DPC) to reduce the potential for damage to masonry, timber etc.

### FIXING

Fixing densities will depend to some extent on the choice of final plastering finish but should never be less than 600 mm centres for dry lining and 250 mm centres for plasters or dot and dab adhesives. The shank of the plug is sealed to the face of the membrane with DS30 SEAMTAPE wrapped around the shaft at least two turns before driving the fixing home with a wooden mallet. In all damp proofing and water proofing applications AQUADRAIN ICD membranes are sealed at flanges (a band of membrane running along the edge with no studs) with VOLSHEET FB. Stud-to-stud joints are overlapped by at least two rows (three in very wet conditions) and the flat area of membrane between rows sealed with DS30 SEAMTAPE (two runs of DS30 SEAMTAPE in the case

of three stud overlaps). Always ensure flanges run vertically on walls and they are positioned in front of the preceding width of membrane. In the case of horizontal joints the lower sheet is always positioned to the front. In severe conditions of water ingress, in addition to the above, joints may also be closed off using VOLSHEET FB.

Take care when running the membranes around internal and external corners to ensure the sheet is fixed tight to the angle thereby allowing well defined edges during subsequent plastering works.

On floors the membrane is rolled out 'dome down' and joints sealed as above. No fixings should be used. At the wall, the floor membrane should be cut flush and the gap sealed with VOLSHEET FB. Alternatively the floor membrane can be taken up the wall 100 mm (in front of the wall membrane) and sealed using DS30 SEAMTAPE & VOLSHEET FB as required.

Flat soffits below ground should never be lined with AQUADRAIN ICD membranes (minimum slope required 10%).

### FLOORS

AQUADRAIN ICD 8mm may be overlaid with expanded polystyrene insulation before laying T&G flooring (ensuring a 10 mm expansion joint all round). Alternatively, a conventional s/c screed (50 mm) can be laid if preferred.

### DECORATION

Normal decorating materials can be used as soon as the floor, screed or plaster finishes are dry (ensure atmospheric moisture levels are below 70% RH). Impermeable floor finishes should not be laid until screed moisture content is below 75% RH.

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### VENTILATION

AQUADRAIN ICD products can provide a dry, warm and habitable living space in basements and other areas suffering chronic damp conditions. However, it is equally important to ensure that areas which lack natural ventilation are provided with adequate means of condensation control, especially in wet areas such as kitchens, bathrooms etc. This is normally best dealt with through the provision of an effective mechanical ventilation system.

### CHEMICAL RESISTANCE

The product is resistant to most chemicals to which it can be exposed in normal building construction.

A small number of aggressive chemicals (e.g. solvents) can, in large concentrations, damage the products during prolonged exposure. For special applications contact the CETCO technical department for advice.

Sizes: AQUADRAIN ICD 8mm - 2.07m x 20m\*

\* including flat overlapping edge (flange) without studs, working area ca. 40 m<sup>2</sup>.

### STORAGE

Rolls of AQUADRAIN ICD should be stored on end in dry conditions away from sharp objects, direct sunlight and high temperatures. Keep membranes away from areas where naked flames may be used.

### HEALTH & SAFETY

No specific hazards are likely to arise in the use of AQUADRAIN ICD products (membrane or ancillaries; neither are classified as hazardous in respect to CHIP II Regulations 1999). However, general precaution should be exercised in the use of drills etc. taking particular note of the special risks associated with confined spaces (basements) with restricted means of access/egress.

TECHNICAL DATA	
PROPERTIES	VALUE
Sheet thickness	approx. 500 µm
Unit weight	0.48 kg/m <sup>2</sup>
Compressive strength (3 mm deformation)	180 kN/m <sup>2</sup>
Deformation under long term loading	max. 20% at 50 kN/m <sup>2</sup>
Working temperature	-50° to +60°C
Softening temperature	+125°C
Linear coefficient of thermal expansion	0.13 mm/m. °C
Water vapour resistance	1800 m <sup>2</sup> .s.GPa/kg
Air gap volume	4 l/m <sup>2</sup>
Thermal resistance	0.12 m <sup>2</sup> .°C/W.
Life expectancy	at least 50 years