

WYKAMOL CM20

The Wykamol 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

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

Wykamol CM20 is the highest drainage capacity membrane in the CM range giving a void volume of 14 litres/m². Suitable for use on floors and walls in very wet situations or where the large stud height is desired to maximize insulation values. When used on floors CM20 can normally be installed without the need for perimeter drainage channels and, when overlaid with concrete, the large diameter studs will give high point load resistance capabilities (150 kN/m²) to support load bearing walls built off the slab.

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 e.g. **Wykamol Integral Waterproofing Liquid No. 2** see separate data sheet). Leave all new works to dry thoroughly before CM membranes are fixed.

In the case of walls suffering from mould or masonry fungi, remove surface contamination by brushing and apply a fungicidal wash (e.g. **Wykabor 10, Microtech Biocide**) prior to fixing membranes. If dry rot (*Serpula lacrymans*) is present in the walls this will require detailed assessment before proceeding (consult the Wykamol Technical Department for further advice).

Above ground level Wykamol CM 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

Wykamol CM

Membranes are installed with studs against the underlying structure. Fixing to walls is carried out with either the Wykamol Brick Plug or CM Plaster Plug (in the case of CM8 through the centre of the stud, for CM Plaster through the flat face of the membrane). Take care when drilling holes to avoid excessive masonry dust falling in to the cavity.

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 Wykamol Rope 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 Wykamol CM Membranes are sealed at flanges (a band of membrane running along the edge with no studs) with Wykamol Tape. 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 Wykamol Rope (two runs of Rope 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 Wykamol Overseal tape.

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



Wykamol Corner Strip. Alternatively the floor membrane can be taken up the wall 100 mm (in front of the wall membrane) and sealed using Wykamol Rope and Overseal tape as required. Flat soffits below ground should never be lined with Wykamol CM membranes (minimum slope required 10%). Vaulted ceilings can be successfully lined using Wykamol CM8/CM Plaster* taking care to seal all mitred joints with Tape/Rope/Overseal Tape as required and ensuring an overlap down the walls of at least 200 mm. The wall membrane is cut to fit the curve of the vault then sealed to the face using Delta Rope/Overseal Tape. Above ground, the membranes are finished at solid floor and ceiling junctions using **CM Profile Strips** (ensuring a continuous air gap for cavity ventilation and a 'straight edge' for plastering).

FINISHING

DRY LINING

CM20 - stud frame: where this method of finishing is anticipated the brick plugs should be in a vertical line roughly corresponding to the stud locations and battens (min. 25 x 38 mm) fixed to the plugs using 6 mm bolts or No. 12 screws. If it is not possible to ensure a straight line for the stud fixings use e.g. 'Gyproc' brackets to hold the battens in place. When fixing plasterboard ensure the screw depth does not perforate the CM membrane. On reasonably flat walls Wykamol Dab Collars can be used to provide a key for board adhesives. The collars, which incorporate a built in fixing plug going through the centre of the collar, are sealed as before with rope on the collar face rather than under the fixing plug head. The fixing collars are set out according to the width of the plasterboard to be used at centers not less than 600 mm.

FLOORS

CM20 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

VENTILATION

Wykamol CM 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 (please consult the Wykamol Technical department for further advice).

Technical Data

Sheet thickness:

CM20 – approx. 1000 µm

Unit weight:

0.95 kg/m²

Compressive strength (3 mm deformation):

180 kN/m² (CM8)

Deformation under long term loading:

max. 20% at 50 kN/m² (CM8)

Working temperature:

-50 ° to +60 °C (all CM products)

Softening temperature:

+125 °C (all CM products)

Linear coefficient of thermal expansion:

0.13 mm/m. °C (CM8/Plaster)

Water vapour resistance:

CM20 - 3500 m².s.Gpa/kg

Air gap volume:

CM20 = 14 l/m²

Thermal resistance:

CM20 - 0.17

Life expectancy:

at least 50 years

Colour:

CM20 - black

Chemical Resistance:

The product is resistant to all 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 Wykamol technical department for advice.

Sizes:

CM20 – 2.0 x 20m

* including flat overlapping edge (flange) without studs, working area ca. 40 m².

Storage

Rolls of Wykamol CM 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 Wykamol CM 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 Advisory Service

The Wykamol Group are committed to excellence in product design and manufacture and the information provided in this data sheet is intended to guide **professional contractors and specifiers** in the appropriate use of our CM range of waterproofing membranes to ensure a successful basement tanking or damp proofing project. If any further advice is required please consult our Technical Department who will be pleased to answer your questions. The following list of data gives an overview of typical characteristics for the products. If specific data for a particular product is required but is not given below please contact our technical department for further details.



Agreement Certificate No 05/4261

Issue Date : September 2009



Wykamol Group

Unit 3 Boran Court, Network 65 Business Park, Hapton, Burnley. BB11 5TH

t: +44 (0)845 400 6666 f: +44 (0)845 400 3333

www.wykamol.com e: sales@wykamol.com