



Vetoproof CM745

Elastomeric crack-bridging cementitious waterproof membrane

Uses

- Waterproof lining for water tanks, dams, canals,...etc.
- Wet-areas waterproofing while receiving tile adhesives.
- Protecting concrete and masonry structures against ingress of chloride ions and carbonation.
- Negative hydrostatic pressure resistance.

Product Description

Vetoproof CM745 is a two component flexible polymer modified cementitious waterproof coating, it has unique crack bridging characteristics even after long term water immersion. The product is suitable for use and contact with potable water and can withstand negative hydrostatic pressure.

Advantages

- Non-Toxic - approved in contact with drinking water.
- Flexible, crack bridging.
- Waterproof.
- Ready to receive tile adhesives.
- Withstands high positive and negative hydrostatic pressures.
- Easy application by brush, roller
- Bonds to damp concrete.
- Effective barrier to sulphates and chlorides.
- Excellent bond to concrete and masonry.

Standards Compliance

- EN 1992-3:2006 - Eurocode 2. Design of concrete structures. Liquid retaining and containing structures
- EN BS 6920 - Elevated temperatures.
- DIN 1048 : Water Penetration Test.
- Fire Tested to BS476 : Parts 6 -2009 and 7-1997.

Technical Data

Vetoproof CM745	Typical Values @ 20°C
Pot Life	40 - 60 min
Density	1.70 kg/Ltr approx.
Toxicity - BS6920	Pass
Chloride content	Nil
Resistance to positive water pressure DIN1048	>8 Bar
Resistance to negative water pressure DIN1048	> 3 Bar
Static crack accommodation	> 1 mm
Dynamic crack accommodation	0.3 mm
Abrasion resistance ASTM D4060	Equivalent to 40 N/mm ² concrete
Chloride Diffusion	No penetration after 24 months
CO ₂ Diffusion	>80 m of concrete
Bond Strength	Higher than concrete cohesive strength
Application temperature	+5°C - 35°C
Harmful to EEC 88/379	No
Volatile Organic Content (VOC)	<10 gm / Liter

Usage Instructions

Surface Preparation

All surfaces should be dry and free from contamination such as oil, grease, loose particles, decayed matter, moss, algal growth, laitence, and all traces of mould release oils and curing compounds. This is best achieved by lightly grit-blasting the surface. Where moss, algae or similar growths have occurred, treatment with a proprietary biocide should be carried out after the grit-blasting process. Spalled and deeply disintegrated concrete should be removed to sound concrete and repaired with a Saveto repair system.

If the surface contains small blow-holes, typically less than 1 mm wide, the coating can be applied directly onto the substrate without the need for a treatment.

Cracks which are less than 0.3 mm in width can be over-coated as long as the crack is not likely to open up to greater than 0.3 mm. Cracks which are greater than 0.3 mm in width should be chased out to 4 mm in width and approximately 15 mm in depth. This should be filled with Vetoproof CM745. When the material in the crack has hardened the coating should be applied over the crack.

Mixing

Vetoproof CM745 liquid concentrate should be poured from the plastic container into a suitably sized mixing container. Commence mixing with a propeller agitator attached to a slow speed drill (300-500 rpm). The powder component should be added gradually to the liquid to avoid lump formation and mixed for 2 to 4 minutes. Vetoproof CM745 should be immediately used after mixing. Do not mix more material than can be used within the pot life. Keep mixing Vetoproof CM745 during the application.

Pre-wetting of the substrate

Thoroughly dampen the substrate surface with water using a brush roller or spray bottle. High porosity substrates will require more dampening than dense substrates. Do not apply the coating when the substrate is wet, but allow the water to soak in until the substrate is just visibly damp prior to proceeding.

Any excess water should be removed using a sponge. Any running water should be stopped with a suitable plugging mortar such as Vetoproof CR747. Contact the local Saveto office for further advice on other suitable water stopping materials.

For optimum use of the product, Vetoproof CM745 white should be applied as the first coat, with Vetoproof CM745 grey as the second coat. This gives a visual indication of coverage.

The first coat should be applied at a wet film thickness of 1 mm (approximate coverage per coat is 1.7 kg/m² or 1 liter / m²). To ensure the correct thickness is achieved

measure out an area (for example 200 m²) then calculate how much material will be needed to cover this area. Monitor the coating thickness during application at regular intervals using a wet film gauge. Care must be taken to attempt to fill all imperfections such as blow holes during the application. If not they can be filled while the coating is still fluid by using a dry sponge. If the coating has dried before these imperfections are found they can be filled using fresh material.

All the mixed material should be used within the pot life of the product. Allow the first coat to cure for a minimum of 4 hours at 20°C per 50% RH and longer at lower temperatures or higher humidities.

The exact drying time will depend on surface temperature, relative humidity and air movement. High temperatures and/or low humidity will reduce the drying time. This can vary from 1 to 16 hours. The first coat should be left to dry until firm and non-markable to the touch. There is no maximum time between coats, however the surface may need cleaning with water prior to the application of the second coat to remove potential contamination.

The second coat should also be applied at a wet film thickness of 1 mm. Pre-dampening of the surface is not necessary prior to applying the second coat.

Vetoproof CM745 is self curing, however the freshly applied coating should be protected from rain and strong wind or until firm to the touch to prevent damage to the wet coating.

Application

Brush application

The most suitable type of brush is a soft bristled wallpaper paste brush (120 to 220 mm wide). Where larger areas are to be applied it is advisable to use a brush with a handle. Load the brush up well and spread the material to the required thickness. If the brush begins to drag during application, do not add water to the material, but dampen the surface again. Finish in one direction for a neat appearance. For floor application, a soft bristled broom is recommended. Pour the material on to the substrate and then spread to the required thickness.

Roller application

Application by roller has the benefit of speed over brush application, particularly on smooth substrates. A good quality medium hair roller is recommended. The roller should be well loaded for ease of application. A heavy roller pattern will be left, therefore it is important to use a finishing tool to produce a smooth coating, with a uniform 1 mm wet film thickness.

Finishing tools

A finishing tool may be required to produce a smooth finish or to repair film defects. Example of suitable tools include a steel plastering trowel, a caulking tool and a hard sponge. All of these must be used immediately after coating application, otherwise the coating may drag or tear. When using a hard sponge it should be dry or very slightly damp. A wet sponge should not be used as this will cause polymer to come to the surface of the coating which causes an unsightly white, streaky effect.

Spray application

Spray application should be carried out using specialized pumping equipment (contact Saveto's local office for more information). This is the preferred method for applications over 150 m².

In smaller tanks with restricted access it may be beneficial to spray. This means the material will be pumped into the restricted area rather than having to be physically carried.

Mixing should be carried out as previously described, with particular care being taken to ensure that no lumps remain in the mix. The mixing container should be placed on plastic sheeting to prevent contamination in the mix. Material should be scraped from the mixing vessel above the wet line following every mix. The mixing paddle should also be cleaned to remove hardened material which if ingested may cause blockage in the pump.

Pour the material into the hopper. Scrape the sides of the hopper down at regular intervals to prevent hardened material from contaminating the mix. Place a cover over the hopper to prevent product skinning caused by water loss.

The mixed material is pumped through the hose to the spray gun. Substrate preparation and coverage rates described above should be adhere to. Wet film thickness should be measured using a wet film thickness gauge every 2 to 3 meters initially until the spray operator has judged the ideal application speed and distance from the substrate. Any areas less than 1 mm thick should be re-sprayed. Subsequent film thickness measurements should be carried out approximately every 10 m².

Sealed joints

Where required joints should be sealed with a suitably approved joint sealant prior to the application of Vetoproof CM745. For further details on suitable sealants contact your local Saveto office.

Apply debonding tape over the sealant. Following the application of Vetoproof CM745 remove the tape and overlaying coating.

Curing

Allow the Vetoproof CM745 to cure for at least 7 days prior to commissioning.

Cleaning

Immediately following application, clean all tools and equipment with clean water. Hardened material can be removed by mechanical means.

Packaging & Coverage

Product	Pack Size	Theoretical Coverage
Vetoproof CM745	20 Kg Kit	0.7 - 1.7 Kg /m ² / Coat

Stated consumptions data are for general guidance. Actual consumption depends on the nature of substrate, consistency used, method of application and wastage.

Shelf Life & Storage

Original sealed container of Vetoproof CM745 and has a shelf life of 12 months provided it is stored clear of ground in a dry shaded place below 35°C.

Limitations

- Do not apply the product at temperature less than +5°C.
- For further information contact our technical department.

Health & Safety

Vetoproof CM745 powder is irritating to the eyes, respiratory system and skin. Avoid inhalation of dust and wear suitable respiratory protective equipment. Vetoproof CM745 liquid is not classified as dangerous. Vetoproof CM745 when mixed becomes highly alkaline. Wear suitable protective clothing, gloves and eye protection.

For both components and for the material when mixed avoid contact with eyes or skin rinse immediately with plenty of water and seek medical advise. For further information please refer to the Product Safety Data Sheet.

Waste material should be allowed to harden overnight then disposed of a non-hazardous waste.

Vetoproof CM745 is non-flammable.

Additional Information

Saveto manufactures a wide range of construction chemicals and specialty products for various applications divided into the following product groups:

- Waterproofing.
- Concrete Repair, Grouts and Enhancements.
- Flooring and Coating Systems.
- Wall & Facade Systems.
- Sealants and Joints.
- Renders & Finishes.
- Plasters & Masonry.
- Tiling Systems
- Primers & Ancillary Products.
- Specialty Products.

Saveto also provides various technical information such as CAD details, detailed method statements, specification clauses, application manuals, product selectors and technical support both in contractors and consultants offices as well as construction sites.

For further information on these products and systems kindly check our website or contact your local Saveto representative.

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