

WATERPROOFING



Vetoproof CM745

Elastomeric crack-bridging cementitious waterproofing membrane

Uses

- Waterproof lining for water tanks, dams, canals,...etc.
- Covered roofs and 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 acrylic modified cementitious waterproofing 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.
- Ready to receive tile adhesives.
- Withstands high positive and negative hydrostatic pressures.
- Easy application by brush, roller.
- Bonds to damp concrete.
- Effective barrier to sulfates and chlorides.
- Excellent bond to concrete and masonry.

Technical Data

Vetoproof CM745	Typical Values @ 20°C
Pot Life (Minutes)	40 - 60
Mixed Density (kg/liter)	1.70 Approx.
Toxicity - BS 6920	Pass
Chloride Content	Nil
Resistance to Positive Water Pressure DIN1048 (Bar)	> 8
Resistance to Negative Water Pressure DIN1048 (Bar)	> 3
Static Crack-Bridging EN 1062-7 (mm)	> 1
Dynamic Crack-Bridging EN 1062-7 (mm)	0.3
Abrasion Resistance ASTM D4060 (N/mm ²)	Equivalent to 40 concrete
Chloride Diffusion	No penetration after 24 months
CO ₂ Diffusion - EN 1062-6 (m)	> 80 of concrete
Bond Strength	Higher than concrete cohesive strength
Application Temperature (°C)	5 to 35
Harmful to EEC 88/379	No
Volatile Organic Content (VOC) (gm/liter)	< 10

Standards Compliance

- EN 1992-3:2006 - Eurocode 2. Design of concrete structures. Liquid retaining and containing structures
- EN 1504-2 Surface protection systems for concrete.
- EN BS6920 - Elevated temperatures.

Usage Instructions

Surface Preparation

All surfaces should be dry and free from contamination, such as oil, grease, loose particles, decayed matter, moss, algal growth, laitance, and all traces of mold 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. Remove spalled and deeply disintegrated concrete 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 treatment.

Cracks that 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. Chased out cracks greater than 0.3 mm in width to 4 mm in width and approximately 15 mm in depth; fill with Vetoproof CM745. When the material in the crack hardens, apply the coating over the crack.

Mixing

Pour Vetoproof CM745 liquid concentrate 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). Gradually, add the powder component to the liquid part to avoid lump formation and mix for 2 - 4 minutes. Immediately after mixing, use Vetoproof CM745. Do not mix material more than the quantity that can use 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 until the substrate is just visibly damp before proceeding.

Remove any excess water using a sponge. Stop any running water with a suitable plugging mortar such as Vetoproof CR747. Contact the local Saveto office for further advice on other suitable water-stopping materials.

Application

Apply the first coat at a wet film thickness of 1 mm (approximate coverage per coat is 1.7 kg/m² or 1 liter/m²).

To ensure achieving the correct thickness, 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. During application, take care of filling the imperfections such as blowholes. If not, fill them while the coating is still in fluid status by using a dry sponge. If the coating dried before finding these imperfections, fill them using fresh material.

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. Leave the first coat 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 before applying the second coat to remove potential contamination.

Apply the second coat at a wet film thickness of 1 mm. Pre-dampening of the surface is not necessary before applying the second coat.

However, Vetoproof CM745 is self-curing; it protects the freshly applied coating from rain and strong wind until it becomes firm to the touch.

Brush application

The most suitable brush is a soft-bristled wallpaper paste brush (120 - 220 mm wide). Where applied to larger areas, 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 the 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 onto the substrate and then spread it to the required thickness.

Roller application

Application by roller has the benefit of quick speeding over brush application, particularly on smooth substrates. A good quality medium hair roller is recommended. Load the roller well for ease of application.

A heavy roller will leave a pattern; therefore, it is important to use a finishing tool to produce a smooth coating with a uniform 1 mm wet film thickness.

Finishing tools

To produce a smooth finish or to repair film defects, use a finishing tool. Examples of suitable tools include a steel plastering trowel, a caulking tool, and a hard sponge. Use all those tools immediately after coating application; otherwise, the coating may drag or tear. When using a hard sponge, it should be dry or very slightly damp. Do not use a wet sponge, as this will cause the polymer to come to the coating surface, which will cause an unsightly white, streaky effect.

Spray application

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

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In smaller tanks with restricted access, it may be beneficial to use the spray application method. This means the material will be pumped into the restricted area rather than carrying it physically.

Follow the mixing procedure as previously described, taking extra care in mixing to ensure that no lumps remain in the mix. Place the mixing container on plastic sheeting to prevent contamination in the mix. Scrap the material from the mixing vessel above the wet line following every mix. Clean the mixing paddle 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.

Pump the mixed material through the hose to the spray gun. Adhere to the substrate preparation and coverage rates described above. Measure the wet film thickness using a wet film thickness gauge every 2 - 3 meters until the spray operator judges the ideal application speed and distance from the substrate. Re-spray any areas less than 1 mm thick. Subsequent film thickness measurements should be carried out approximately every 10m².

Sealed joints

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 until the substrate is just visibly damp before proceeding.

Remove any excess water using a sponge. Stop any running water with a suitable plugging mortar such as Vetoproof CR747. Contact the local Saveto office for further advice on other suitable water-stopping materials.

Curing

Allow the Vetoproof CM745 to cure for at least 28 days before commissioning.

Cleaning

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

Legal Disclaimer

Saveto endeavors to ensure that any advice, recommendations, information it may give is accurate and correct. It cannot accept any liability either directly or indirectly arising from the use of its products because it has no direct or continuous control over where or how its products are applied, whether or not following any advice, specification, recommendation, or information given by us. Saveto has the right to change any of the technical datasheets specifications upon its discretion without prior notification.

Hard copies of TDSs are printed once or twice a year. Our technical data sheets are continuously updated as per R&D improvements and new 3rd party testing; kindly refer to our website for the latest updated TDSs.

Packaging & Coverage

Product	Pack Size	Theoretical Coverage
Vetoproof CM745	20 kg kit	1.7 kg/m ² /coat @ 1 mm thickness

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

Shelf Life & Storage

The original sealed bag and container of Vetoproof CM745 have a shelf life of 12 months, provided they are stored off the ground, in a dry, shaded place below 35°C.

Limitations

- Do not apply the product at a temperature less than +5°C.
- It is recommended to use fiberglass mesh in areas with either small cracks or in regions under particular stress while the first coat is still wet.
- 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 goggles. Avoid contact with eyes or skin for both components and the mixed material. In case of eye irritation, immediately wash with a copious amount of clean, cold water and seek medical advice. Waste material should be allowed to harden overnight then disposed of as non-hazardous waste.

Vetoproof CM745 is non-flammable.

For more information, refer to the material safety data sheet.

Additional Information

Saveto manufactures a wide range of construction chemicals and specialty products for various applications.

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