

Permastop

Description

A cement-based mixture containing chemicals which combine with the water in cement and migrate into the concrete or cement plaster thereby effectively waterproofing the structure against hydrostatic pressure. For slurry coatings and plugging holes. Supplied in a dry powder form.

Purpose

For solving most types of waterproofing problems in below-ground and water-containing structures.

Types

Supplied in one type only. Can be used in conjunction with Cemcrete's Accelerator for sealing gushing leaks.

Colours

Supplied in grey only.

Applications

Suitable for permanently waterproofing, in all climates, structures such as basements, cellars, reservoirs, dry docks, bridges, tunnels, sewers, hydro-electric stations, retaining walls, lift shafts, machinery pits, parapet walls, grain silos, underground in mines, magazines, subways, underground telephone structures, shower floors, roofs, rising damp, balconies, etc.. Can be effectively applied to outside or inside of structures.

Advantages

Penetrates capillaries of concrete effectively and permanently sealing them off. Protects against oil, salt water, alkalis, certain chemicals, weak acids and aggressive sulphate soils. Excellent adhesive qualities, used for bonding old and new concrete. Waterproofs from inside against hydrostatic pressure due to osmosis i.e. from high concentration of active chemicals to low concentration. Will increase strengths of concrete by up to 30% dependent on quality of original concrete. Waterproof but not vapour proof thus allowing the concrete to breathe. Non-toxic so can be used for potable water, even fish ponds. Resists water pressure of up to 120m head. Chemicals remain dormant if no water is present but will start reacting again if water does come into contact with it at any time later. Cannot rupture or tear. Because Permastop is cement-based, its expansion and contraction is essentially as the concrete surface it is applied to.

Note

Does not react with clay bricks unless overcoated with cement plaster. Must be in contact with the cement/concrete to be effective.

Specifying

"Cemcrete's Permastop to be applied in two coats with a 150mm block brush. All suspect moving joints or cracks to be repaired using "Joint Filling Mix" incorporating Permastop and covered using polypropylene membrane saturated with Permastop. Surfaces to be prepared in accordance with manufacturer's instructions."

Technical Information

Cemcrete provides a free comprehensive technical service based on over 3 decades of experience in the field of surface applications and cement technology.

Always wear gloves when applying Permastop

Specimen Finish

A trial area should be treated on-site for the Engineer's or Architect's approval and to serve as a specimen to which Contractor should work.

Site Work

Storage

In unopened drums shelf life is at least 12 months.

Surface Preparation

Surfaces should not have been previously painted. (If they have, see 1 below). They should be firm and free from loose material, mould, oil or grease. Organic growths should be removed by brushing with a solution of 1 volume household bleach (sodium hyperchlorite solution) and 3 volumes water. Allow 12 hours to kill spores then remove with a wire brush and water. This should be followed with an acid wash comprising a solution of 1 volume hydrochloric acid and 3 volumes water. Apply the acid solution using a white wash block brush from a plastic bucket and allow to react for at least 10 minutes then wire brush and flush with clean water. Projections should be chipped off and all cracks and joints cut out square and made good with "Joint Filling Mix" mixed as under. The concrete should be thoroughly saturated with water before application to aid in the passage of the chemicals through the capillaries of the concrete. Allow the surface to partially dry out then apply Permastop.

1 If surface has been previously painted it should either be bush hammered or sand blasted to totally remove all traces of previous coatings.

Mixing

Slurry: To one volume water stir in two volumes Permastop. Keep stirred and use all mixed material within 20 minutes. Do not add water to mixed material to restore workability.

Joint Filling Mix: Mix one volume Permastop with one volume clean plaster sand and bring to a thick plaster consistency with clean water.

Membrane: Mix as in slurry and dip membrane in slurry to completely impregnate membrane.

Application

Slurry: To the damped surface brush on a liberal coat of Permastop using a 150 mm block brush or a large distemper brush. A soft broom may be used for application to floors. If two coats are applied the second coat should not be commenced until the first has set for 30 minutes but no later than 90 minutes after the application of the last coat of Permastop. We recommend a plaster or topping mix comprising either Cemcrete's Water Repellent Cement or at least Cemcrete Waterproofing Compound.

Joints: To clean out joints/cracks apply one coat neat slurry mix then within 90 minutes fill with "Joint Filling Mix" above.

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