

Dr.SmartProof

Elastomeric Cementitious Waterproofing Mortar



Description

Dr.SmartProof is a two component mortar composed of special type of cements, bonding agents, selected fillers and special additives (component A) and water based synthetic acrylic co-polymer (component B). When mixing the two components together a workable paste is obtained that can be applied either horizontally or vertically which adheres to concrete and masonry supports. Once hardened, it forms a waterproofing and flexible layer resistant against aggression of Chlorides and Sulphates.

Advantages

- For external and internal applications on both old and new surfaces
- Resistant against harsh environment
- Polymer modified, therefore reduces permeability and improves adhesion and mechanical strength
- Easy to use, which reduces labor cost
- Flexible and can accommodate fine cracks
- Breathable coating which allows substrate to breath

Applications

DR.SMARTPROOF can be applied on concrete, brick, ceramic, marble, wood, etc.

It is used for:

- Protection of concrete structures exposed to chemical aggression.
- Waterproofing for potable water tanks, retaining walls, roofs and foundations.
- Waterproofing for substrates exposed to deformation or vibration.
- Waterproofing for balconies, terraces, bathrooms, kitchens, prior to floor tiling
- Waterproofing and protection of concrete and masonry in contact with soil
- To protect cracked plastering against water or steam penetration
- Maintenance on top of existing ceramic of marble flooring as a waterproof coating prior to fixing new tiles
- Waterproofing for hydraulic channels and foundations.

Instructions For Use

Surface Preparation

The surface of the concrete shall be sound, clean and uncontaminated. This preparation shall be such as to leave a sound exposed concrete surface free from dust, loose particles and any deleterious matter. If the concrete surface is defective or has laitance, it must be cut back to a sound base. Moss and lichen must be removed physically followed by treatment with fungicidal wash. After treatment, it must be washed down thoroughly with clean water. In addition, make sure that all surfaces must be damp but not totally wet before progressing the work.

Crack Treatment

Shrinkages and non-moving structural cracks less than 0.3mm shall be filled with a pre-treatment strip of **Dr.SmartProof** directly bridging over the crack. Static cracks greater than 0.3mm shall be repaired by chiseling the crack into a V-shape, to a depth and width of 25mm and priming it with **Dr.Bond SBR** followed by the application of cementitious repair material from **Dr.Concrete** range or other equivalent. Voids and honeycombs shall be patched with polymer modified fairing coat product, allowing the area to cure before applying the membrane.

Right Angle Bends

All right angle bends must have a coving detail installed. In areas where parapet walls, columns, pipe penetrations are present, a 45° coving fillet shall be made at all corners using Dr.Repmor or other equivalent a Fiber reinforced shrinkage controlled mortar for concrete repair to the water saturated cured surface. All other angles, joints, protrusions and stress joints should be pre-treated with a heavy application of DR.SMARTPROOF extending 150mm on both sides of the coving.

Movement-Joint

Expansion and movement joints should be sealed with **Dr.Seal Pu25**, a Polyurethane sealant. The joint sealant or **Dr.Seal PS PG**, a polysulfide sealant and it shall be left to cure before the application of **Dr.SmartProof** waterproofing membrane.



Priming

Priming is not normally required on good quality concrete substrates. However, all surfaces must be splashed with clean water before applying **Dr.SmartProof**. Highly porous concrete or concrete containing micro-silica will require priming with a diluted **Dr.SmartProof** Part B, . The primer shall be applied at a rate of 5-6m²/L and left to achieve a tack-free condition before applying the top coat. A second coat of primer may be required if the substrate is excessively porous.

Mixing

Dr.SmartProof is supplied in pre-measured quantities. Pour into a clean container component B (liquid) and then add component A (powder). Mix till obtaining a homogeneous mixture free from lumps. It is recommended to mix with an electrical drill fitted with suitable paddle, at low number of turns, to avoid air bubbles

Application

Apply the mixture with a spatula , roller or brush , in at least two coats, with a thickness not more than 1 mm per coat. Before the second coat is applied make sure that the first one has hardened sufficiently. On substrates exposed to movements deformation or where cracks are expected it is recommended to fix **Dr.FG Mesh 65** , reinforcing glass fiber mesh into the first coat of DR.SMARTPROOF. The finishing can be done with a smooth spatula, roller or brush , few minutes after the application. Ceramic tiles laying can start after at least 2 to 3 days, using elastic adhesives from **Dr.Concrete** range or other equivalent.

Curing and Protection

Surfaces treated with **Dr.SmartProof** must be kept damp and protected from the drying action of direct sunlight for a minin period of 3 days after application.

Cleaning

All tools should be cleaned with water. Cured material can on removed mechanically.

Recommendations

- Store the components of **Dr.SmartProof** out of direct sunlight before mixing during hot weather .
- After application, use sheets to protect the drying surface from the rapid evaporation during dry, hot or windy conditions.

Consumption

1.60 kg/ m² per mm of thickness

Packaging

Dr.SmartProof is supplied as 18 kg of component A (powder) and 7.2 Liter of component B (liquid). Both A& B separately packed in one 20 L plastic pail for easy handling and mixing.

Storage

Keep in tightly closed containers and in sheltered and dry place. In these conditions it maintains unchanged its characteristics for 12 months.

Applicable Standards

- **BS 6920**
- **WRAS Approved**

HEALTH & SAFETY

The product must be handled with caution. Use gloves, protective creams and goggles to avoid the contact with eyes and skin. In case of skin contact clean immediately with a resin removing cream, followed by soap and water.

In case of contact with eyes, use clean water to wash the eyes and seek doctor medical attention immediately.

Technical Data

Properties	Result
Component A Appearance Density	Grey Powder* 1.45 kg/L
Component B Appearance Density	Liquid 1.0 kg/L
Wet Density	1.8 kg/L
Solar Reflective Index	>81
Elongation (ASTM D 412)	>60%
Tensile Strength (ASTM D638)	>1 N / mm ²
Crack Bridging (ASTM C 1305)	Up to 2mm
Depth of Water Penetration (BS EN 12390 Pt. 8)	2.3mm
Chloride Ion Penetration ASTM D1556 - 04	NIL
Moisture Vapor Transmission	>300 g/m ² / day
Adhesion to concrete	>1.0 N / mm ²
Drying Time Between Coats	8 hours
Curing Time Before Application of Tile	48 hours
Drying Time Before Waterproofing Testing	3 days
Noxiousity according to ECM 88/379	no
Workable Time	>30 minutes
Application Temperature	from +5°C to +35°C
Service Temperature	-5°C to +80°C