



One-component, Fiber-reinforced, Cement-based Waterproofing Membrane for Concrete

Description

Shieldproof CW105 is a single-component, fiber-reinforced and flexible cement-based waterproofing for concrete protection, crack bridging and alkali resistant, designed to protect concrete structures from water, vapor, chloride ions, acid and alkali gases.

Uses

- Can be used as structural protection behind cladding.
- For waterproofing and protecting concrete structures and tanks, basins, pipes, etc.
- Waterproofing of bathrooms, showers, terrace roofs and swimming pools before the application of ceramic tiles bonded with adhesives.
- Waterproofing of external wall surfaces to be backfilled in ground.
- Inside waterproofing of negative water pressure of walls and floors in basements
- Flexible protection coating for reinforced concrete structures against the effects of freeze-thaw and carbon dioxide attack to improve durability.

Characteristics / Advantages

- Single-component, easy to apply and ready to use.
- Good flexibility with thermal expansion.
- Excellent sag resistance on vertical surfaces.
- Adjustable consistency, easy to be applied by brush or trowel.
- Excellent adhesion performance on different substrates including concrete, cement mortars, stone, masonry.
- Provides waterproofing even on damaged surfaces.
- Can be applied on damp surfaces.
- Good crack-bridging characteristics.

Standard Compliance

- EN 1504-2: Principle 1.3 (C)
- BS 6920

Typical Properties

Color	: Grey
Mixed Density (@23 °C)	: 1.50 g/ml
Pot Life (@23 °C, 50% RH)	: 30 minutes
Initial Tensile Adhesion Strength (EN 14891)	: ≥ 0.5 MPa
Water Vapor Permeability (EN ISO 7783-1)	: S _D < 5 m, class 1 (Permeable)
Crack-bridging Ability (EN 14891)	: > 0.75 mm
(@23 °C)	> 0.75 mm
(@-5 °C)	
Capillary Absorption (EN 1062-3)	: 0.02 kg/m ² ·h ^{0.5}
Water Penetration Under Pressure (EN 12390-8) after 72 hours at 5.0 bars	: No penetration

Application Instructions

1. Application Conditions

Substrate:

Temperature	: +10°C to +40°C and ≥ 3°C above dew point
Moisture Content	: ≤ 4% (preferable, but can be applied on green concrete)
Compressive Strength	: ≥ 25.0 MPa
Pull-off Strength	: ≥ 1.5 MPa

Ambient Air:

Temperature	: +5°C to +40°C
Relative Humidity (ASTM F2170)	: < 75%

2. Substrate Preparation

Concrete should be sound and clear from dust, loose material, curing compounds, oils, etc. any de-laminated, and deteriorated concrete should be removed by suitable means.

Any rust, scale, concrete, and other loose material on the steel reinforcement should be removed using abrasive blast cleaning or other suitable means to reach the bright condition.



3. Mixing

As a slurry coat:

Pour into a suitable container 6.0 liters of clean water for each 25 kg of **Shieldproof CW105**; add the powder gradually to the water and mix using a low-speed mixing drill fitted with a suitable mixing paddle, until a creamy consistency is achieved, apply using a brush.

As a mortar coat:

Pour into a suitable container 4.4 liters of clean water for each 25 kg of **Shieldproof CW105**; add the powder to the liquid gradually and mix using a low-speed mixing drill fitted with a suitable mixing paddle. Continue mixing for 2 – 3 minutes until lumps-free mix and uniform consistency are achieved, apply using a trowel.

4. Application

To achieve the perfect property, the correct rate and method of application are necessary. Apply not less than two coats of slurry coat of **Shieldproof CW105** by brush, roller or low-pressure spray, all items should be covered with a sealer, allow 2 – 4 hours between coats.

Apply mortar coat by trowel or float, in cracks, holes, and coving areas. Allow mortar to reach initial set before adding additional layers. The application of the second layer should be done after the mortar reach to initial setting time.

5. Cleaning

Tools should be cleaned immediately with clean water. Hardened material should be removed mechanically.

Consumption

Approximately 1.5 kg per m² per coat for 1 mm wet film thickness.

Note: This coverage is theoretical and may vary due to site wastage and actual joint depth/width.

Packaging

Shieldproof CW105 is supplied in 25 kg bags.

Shelf Life and Storage

Shieldproof CW105 has a shelf life of 12 months when stored in its original unopened packing in dry conditions. Shelf life may reduce if the recommended storage conditions changed.

Safety Instructions

Shieldproof CW105 contains hydraulic cement and may cause irritation to skin or eyes. For further information Refer to the Material Safety Data Sheet.

Disclaimer

Manaseer Industrial Complex has the right to amend its datasheets anytime. Please make sure to have the latest published datasheet version.

This Product is Environmentally Friendly

Manaseer Industrial Complex
is a member of US Green Building

