



Two-component, General Purpose, Acrylic and Polymer-modified Waterproof Topcoat

Description

Shieldproof CW250 is a two-component, acrylic and polymer-modified cement-based coating for concrete and masonry. It consists of a blend of cement, polymers, selected fillers and silica sand in the powder form in addition to acrylic co-polymers and wetting agents in the liquid form.

Uses

- Water resistant topcoat for external and internal applications.
- Protects concrete structures from weathering conditions.
- As a topcoat for bridges, dams, boundary walls and so on.
- Can be applied as a topcoat behind cladding.
- Can be applied on old, new structures, or damped concrete.

Characteristics / Advantages

- Easy application by brush, roller, or airless sprayer.
- High adhesion strength.
- Low shrinkage characteristics.
- Excellent protection against ingress.
- High chloride and carbon ions diffusion.
- Breathable, allows water-vapor permeability.
- Can be used in contact with potable water.
- High durability features and high performing characteristics during service condition, including artificial weathering, UV exposure, and thermal conditions

Standard Compliance

- EN 1504-2: Principle 1.3 (C)**
- BS 6920: 2020**

Typical Properties

Color	: White / Grey
Mixed Density (@23 C)	: ~1.80 g/ml
Pot Life (@23 C, 50% RH)	: 80 minutes @25 C 50 minutes @35 C
Adhesion Strength (EN 1542)	: ≥ 1.0 MPa
Resistance to Positive Water Pressure (DIN 1048)	: Up to 5 bars
Permeability to Water Vapor (EN ISO 7783-1)	: S _D < 5 m (Class 1)
Permeability to CO2 (EN 1062-6)	: S _D > 50 m

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	: < 75%

2. Substrate Preparation

The substrate must be sound, clean, dry and free of all contaminants such as dirt, oil, grease, loose coatings and surface treatments, etc.

Concrete substrates should be prepared mechanically using grinders or captive blast cleaning to remove cement laitance and achieve an open textured, fine gripping surface. All dust, loose and friable material must be completely removed from all surfaces preferably by brush or vacuum.



3. Mixing

Pour into a suitable container 5 liters of **Shieldproof CW250** for each 15 kg. 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 a lumps-free mix and uniform consistency are achieved.

4. Application

Shieldproof CW250 can be applied by stiff brush or airless spray. Allow the first coat to cure and dry completely overnight before applying the second coat, full dryness of the first coat depends on the relative humidity and the ambient temperature. The second coat should be applied within the recoat window, perpendicular to the first coat to secure the membrane interlock and to provide impervious barrier.

When it is preferable to apply a third coat, it is recommended to apply impeded mesh between coats to obtain reinforced build-ups with maximized adhesion.

Fabric Reinforcement:

Where required, **Shieldproof CW250** can be reinforced using a suitable fabric reinforcement. This should be applied onto a freshly placed 0.7 – 1.0 mm layer of **Shieldproof CW250** whilst it is still wet and rolled in using a washer roller or PTFE finned roller to embed the mesh.

5. Cleaning

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

Consumption

Approximately 1.80 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 CW250 is supplied in 20 kg packs (5kg polymer, 15 kg powder).

Shelf Life and Storage

Shieldproof CW250 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 are not followed.

Safety Instructions

Shieldproof CW250 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 at any time. 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

