Shieldproof CW250

General Purpose, Two-component, Cement-based Waterproofing

TECHNICAL DATA SHEET

Description

Shieldproof CW250 is a two-component, polymer-modified, cement-based waterproof 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

- As a water-resistant topcoat for external and internal applications for concrete.
- Wet areas such as toilets and kitchens.
- Protection against ingress.
- Protects concrete from weathering conditions.
- As a topcoat for bridges, boundary walls, dams, etc.
- Can be applied as a topcoat behind cladding.
- Can be applied on old, new structures or damped concrete.

Characteristics / Advantages

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

Standard Compliance

EN 1504-2: Principle 1.3 (C)

BS 6920

DIN 1048

Shelf Life and Storage

Shieldproof CW250 has a shelf life of 12 months when stored in its original unopened packaging in cool and dry conditions, protected from direct sunlight, heat, and moisture. Shelf life may be reduced if the recommended storage conditions are not followed.

Typical Properties

Color/ Appearance	White liquid polymer (Part A) with white or grey powder (Part B)
Mixed Density (@ 23°C)	1.65 ± 0.10 g/ml
Working Time (@ 23°C)	30 minutes
Overcoating Time (@ 23°C ± 2)	4 – 6 hours
Application Thickness	1 – 2 mm per coat
Ready for Tiling Works	3 days
Full Cure	7 days
Adhesion Strength (EN 1542)	≥ 1.0 MPa
Resistance to Positive Water Pressure (DIN 1048)	Up to 5 bars
Water Vapor Transmission (ISO 7783-1)	S_D: 0.41 m (Class 1, permeable to water vapor)
Permeability to CO_2 (EN 1062-6)	S_D > 50 m
Liquid Water Permeability (EN 1062-3)	< 0.1% (very low)

Packaging

Shieldproof CW250 is supplied in 25 kg packs (5 kg polymer, 20 kg powder).

Safety Instructions

Shieldproof CW250 contains hydraulic cement and may cause irritation to the skin or eyes. For further information Refer to the Material Safety Data Sheet.

TECHNICAL DATA SHEET

Application Instructions

1. Surface Preparation

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

Thoroughly saturate the surface of the concrete to provide a saturated surface dry condition (SSD). The application temperature is 5 – 35℃.

2. Mixing

Add the powder part (20 kg) to the liquid part (5 kg) gradually and mix using a low-speed mixing drill fitted with a suitable mixing paddle. Continue mixing for 2 – 3 minutes until a lump-free mix and uniform consistency is achieved.

3. Application

Shieldproof CW250 can be applied with a stiff brush, roller, or trowel. Allow the first coat to cure for 4 – 6 hours at 25°C before applying the second coat. The full drying and overcoating time will vary depending on the ambient temperature, relative humidity, and wind. A minimum of two coats is necessary for better performance, and the second coat should be applied within the recoat window (overcoating time), perpendicular to the first coat to secure the membrane interlock and to provide an impervious barrier.

In case of exceeding 24 hours between coats, it is necessary to apply a coat of **Shieldprime AWB** or **Shieldbond AB30** before applying the second coat.
When it is preferable to apply a third coat, it is recommended to embed mesh between coats to obtain reinforced build-ups.

Fabric-reinforcing mesh can be used on cracks and joints. The mesh is embedded into the first coat while still wet and immediately encapsulated by applying **Shieldproof CW250**.

4. Cleaning

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

Consumption

Approximately 1.65 kg per m^2 per coat for 1 mm wet film thickness.

Note: This coverage is theoretical and may vary due to site wastage and substrate porosity and texture.

Limitations

- Do not apply the product if the ambient temperature is less than 5°C.
- Do not change the mixing ratio and ensure fully timed mixing is carried out as detailed.
- If the surface is very weak or deteriorated, two scratch coats of **Shieldproof CW250** are needed to hide all imperfections before starting the application.
- Hot weather practices should be adopted during application and curing if the temperature is above 35°C. In hot conditions, store the material in a cool environment prior to mixing.

Technical Support

Refer to technical information, method statement, or contact technical support team for any inquiry.

Address: Manaseer Group, 8th Circle, King Abdullah II St. 302
P.O. Box 925988 Amman, 11110, Jordan
Phone +962 6 5800600
Fax. +962 6 5833890
Email: info.shield@manaseer-ic.com
Website: www.manaseergroup.com