



Acrylic-reinforced, Flexible, Cement-based Waterproof Membrane

Description

Shieldproof CW270 is a two-component, acrylic polymer-modified, cement-based coating for concrete and masonry, designed to protect concrete structures from water, vapor, chloride ions, acid and alkali gases as well as moisture protection. **Shieldproof CW270** consists of a blend of cement, polymers, selected fillers and silica sand in the powder form as well as acrylic co-polymers and wetting agents in the liquid form.

Uses

- Wet areas such as toilets, kitchens, laundry rooms, etc.
- As marble and granite backing material to prevent the ingress of moisture.
- To provide concrete protection from water, vapor, chloride ions, acid, and alkali gases.
- Suitable for water retention areas such as swimming pools.

Characteristics / Advantages

- Factory controlled; only mix pre-blended powder and modified acrylic polymer together.
- Easy application by brush, roller, or airless sprayer.
- High adhesion strength
- Low shrinkage characteristics
- Durable, excellent resistance to long-term exposure conditions.
- Non-toxic, can be used in areas in contact with potable water.
- Breathable, allows water vapor permeability.
- Resists positive water pressure.
- Optimum characteristics in terms of flexibility and thermal expansion.

Standard Compliance

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

Typical Properties

Color	: White / Grey
Mixed Density (@23°C)	: ~1.80 g/ml
Pot Life	: 80 minutes @25°C 50 minutes @35°C
Adhesion Strength (EN 1542)	: ≥ 1.0 MPa
Resistance to Positive Water Pressure (DIN 1048)	: Up to 7 bars
Resistance to Negative Water Pressure (DIN 1048)	: Up to 1.5 bars
Permeability to Water Vapor (EN ISO 7783-1)	: S _D < 5 m (Class 1)
Permeability to CO ₂ (EN 1062-6)	: S _D > 50 m
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

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 CW270** 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 CW270 can be applied by stiff brush or airless sprayer. 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 shall be applied within the recoat window, perpendicular to the first coat to secure the membrane interlock and to provide impervious barrier.

When its 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 CW270** can be reinforced using a suitable fabric reinforcement. This should be applied onto a freshly placed 0.7 – 1.0 mm layer of **Shieldproof CW270** 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 CW270 is supplied in 20 kg packs (5 kg polymer, 15 kg powder).

Shelf Life and Storage

Shieldproof CW270 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 CW270 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

