High chemical resistant solvent free epoxy protective coating for concrete and metal



Description

Strongcoat CR402 is a solvent free, high build epoxy resin protective coating with outstanding chemical and mechanical properties. Strongcoat CR402 is supplied as a two component product in pre-weighted base and hardener packs, ready for site mixing.

Applications

Strongcoat CR402 is designed for internal applications such as:

- ▲ Heavy duty indoor protective coating for concrete and
- → Heavy duty wall and floor coating in food processing plants, grain silos, dairies, breweries, hospitals, and pharmaceutical industries.
- ▲ High chemical resistant protective coating for power stations, oil refineries, and sewage treatment plants.

Advantages

- ▲ Solvent free and low odour.
- ▲ Excellent resistance to mould and fungus growth.
- ▲ Excellent resistance to a variety of chemicals.
- ▲ Easy to clean with a smooth, hard and glossy finish.
- ▲ Excellent abrasion resistance.
- ▲ Exhibits good mechanical properties.
- ▲ Resistant to sewage effluents.
- ▲ Excellent adhesion to concrete and steel.

Method of Use

Substrate Preparation

Concrete surfaces:

The Substrate should be sound, clean and free from contamination. Surface Laitance should be removed by grit blasting or water jetting. All exposed blow holes should be filled with epoxy paste using Quickmast 341.

Steel surfaces:

All surfaces should be grit blasted to reach a bright finish meeting the requirement of Swedish Standard SA 2 1/2.

Mixing

To ensure proper mixing, a mechanically powered mixer or drill fitted with suitable paddle should be used.

Technical Properties:

Specific gravity: $1.3 \pm 0.1 \,\mathrm{g/cm^3}$

Solid content: 100%

Colour: Red, green & grey

Abrasion resistance: Excellent

Bond strength:

> 2 MPa ASTM D4541-85

60 - 80 min @ 25°C Pot life:

Recoat-able time: Between 5 - 16 hr @ 25°C

Full cure: After 7 days @ 25°C

Light foot traffic: 1 day @ 25°C

Application tempera-

ture:

5 to 35°C

BS 6319, Part 7

Service temperature: -20 to 50°C

Water absorption:

ASTM D570

< 0.1%

VOC: < 10 g/ltr

Stir the content of each component separately to disperse any settlement. Add the entire content of the hardener to the base and mix for 3 minutes and until uniform colour and consistency are achieved.

Application

Smooth finish:

Strongcoat CR402 can be applied by brush; roller or airless spray machine. The first coat should be applied at a film thickness of 150 micron to obtain a continuous uniform coating. The second coat should be applied within the over coating time at 150 micron film to achieve the maximum adhesion between the two coats.

Antislip finish:

The first coat (base coat) should be applied at thickness of 150 micron and while it is still wet, it should be fully blinded with the preferred size of Antislip Aggregate.



Once the base coat reached the initial cure (normally next day), all excess aggregate should be removed. A minimum of two top coats should be applied depending on the size of Antislip Aggregate to provide a minimum thickness of 300 microns.

The successive layers of top coats should be applied within the recoat-able time mentioned in the technical properties table.

Notes:

- ▲ Strongcoat CR402 should not be applied over existing coatings. However it can be applied on top of itself, by maintaining the mentioned recoat-able time.
- Application should not be undertaken if the temperature is below 5°C, nor when the relative humidity exceeds 90%.
- Application should not be done, when there is standing or running water.
- ▲ Strongcoat CR402 is not designed for outdoor applications and is not colour stable when exposed to direct sun light nor when in contact with some chemicals. However this colour change does not affect the performance of the coating.
- ▲ Precaution is recommended if the application is taking place at high temperatures (above 30°C).

Cleaning

All tools should be cleaned immediately after application using DCP Solvent. Hardened materials must be cleaned mechanically.

Packaging

Strongcoat CR402 is available in 5 kg packs (3.8 litre).

Coverage

Approximately 25 m^2/pack per coat to provide 150 microns dry film thickness. Two coats should be applied to achieve 300 microns dry film thickness.

Storage

Strongcoat CR402 has a shelf life of 12 months from date of manufacture if stored in dry conditions at room temperature in original unopened Packs

Chemical Resistance

Based on test method ASTM D1308, after 7 days submersion in the below chemicals:

Hydrochloric Acid 36%	RS
Sulphuric Acid 10%	R
Phosphoric Acid	R
Nitric Acid 10%	RS
Lactic Acid 10%	R
Citric Acid 10%	RS
Sodium Hydroxide 40%	R
Oleic Acid (sat.)	R
Viniger 10%	R
Potassium Hydroxide 50%	R
Ammonia Solution 10%	R
Water	R
Chlorinated Water	R
Sea Water	R
White spirit	R
Xylene	RS
Brake Fluid	R
Diesel	R
Kerosene	R

R: Resistant

RS: Resistant with slight discoloration

If these conditions are exceeded, DCP Technical Department should be contacted for advise.

Cautions

Health and Safety

Strongcoat CR402 should not come in contact with skin or eyes. Goggles and gloves should be used.

In case of accidental contact with eyes, immediately flush with plenty of water for at least 10 minutes and seek medical advise if necessary.

For further information refer to the Material Safety Data

Sheet.

Fire

Strongcoat CR402 is nonflammable.

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A wide range of construction chemical products are manufactured by DCP which include:

- ▲ Concrete admixtures.
- ▲ Surface treatments
- ▲ Grouts and anchors.
- ▲ Concrete repair.
- ▲ Flooring systems.
- ▲ Protective coatings.
- ▲ Sealants.
- ▲ Waterproofing.
- ▲ Adhesives.
- ▲ Tile adhesives and grouts.
- ▲ Building products.
- ▲ Structural strengthening.



Note:
We endeavour to ensure that any information, advice or recommendation we may give in product literature is accurate and correct. However, because we have no control over where and how products are applied, we cannot accept any liability arising from the use of the products.

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