

# Strongcoat CR402

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-weighed 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 steel.
- ▲ 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.

## Technical Properties:

Specific gravity:	1.3 ± 0.05 g/cm <sup>3</sup>
Solid content:	100%
Colour:	Red, green & cement grey
Abrasion resistance:	Excellent
Bond strength: ASTM D4541-85	> 2 MPa
Pot life:	40 - 50 min @ 25°C 30 - 40 min @ 35°C
Re-coatable time:	Between 5 - 16 hr @ 25°C
Full cure:	After 7 days @ 25°C 4 days @ 35°C
Compressive strength: BS 6319, Part 2	> 65 MPa @ 7 days
Tensile strength: BS 6319, Part 7	> 15 MPa @ 7 days
Flexural strength: BS 6319, Part 3	≥ 30 MPa
Taber abrasion resistance: (1000 g, 1000 cycle) ASTM D4060, weight loss CS17 wheel	150 milligram
Light foot traffic:	1 day @ 25°C
Application tempera- ture:	5 to 35°C
Service temperature:	-20 to 50°C
Water absorption: ASTM D570	< 0.1%
VOC:	< 10 g/ltr

## Mixing

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



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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 a 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 200 micron to obtain a continuous uniform coating.

The second coat should be applied within the over coating time at 200 micron film thickness to achieve the maximum adhesion between the two coats.

### *Antislip finish:*

The first coat (base coat) should be applied at a thickness of 250 microns and whilst wet it should be fully blinded with the preferred size of Antislip Aggregates.

Once the base coat reaches full cure; normally next day; all excess aggregates should be removed. The top coat should be applied at minimum thickness of 250 - 500 microns depending on the Antislip Aggregate size used.

### *Notes:*

- ▲ Strongcoat CR402 should not be applied over existing coatings. However it can be applied on top of itself, by maintaining the mentioned over coating time.
- ▲ Application should not be undertaken if the temperature is below 5°C, nor when the relative humidity exceeds 90%.
- ▲ Application should not be carried out, when there is standing or running water.
- ▲ Strongcoat CR402 is not designed for outdoor applications and is not colour stable when exposed to direct sunlight 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.

## Chemical Resistance

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

Hydrochloric Acid 36%	R
Hydrochloric Acid 36%*	RS
Sulphuric Acid 10%	RS
Phosphoric Acid 20%	R
Nitric Acid 10%	RS
Lactic Acid 10%	R
Citric Acid 10%	R
Sodium Hydroxide 40%	R
Sodium Hydroxide 48%*	RS
Oleic Acid (sat.)	R
Viniger 10%	R
Potassium Hydroxide 50%	R
Ammonia Solution 10%	R
Water	R
Chlorinated Water	R
Sea water	R
Brake Fluid	R
Diesel	R
Kerosene	R

\* Tested for submersion @ 50°C.

R: Resistant

RS: Resistant with slight discoloration

## Packaging

Strongcoat CR402 is available in 5 kg packs (3.85 litre).

## Coverage

### *For smooth finish:*

Approximately 19 m<sup>2</sup> per pack per coat to give 200 microns dry film thickness. Two coats should be applied to achieve 400 microns dry film thickness.

### *For antislip finish:*

Depending on the Antislip Aggregate size used the consumption will vary from 0.4 - 0.5 kg per m<sup>2</sup> for the base coat.

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## 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

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

## 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 advice if necessary.

For further information refer to the Safety Data Sheet.

## Fire

Strongcoat CR402 is nonflammable.

### Chemical Resistance after full cure (7 days @ 25°C), ASTM D1308 (Spot - test @ 1 hr)

Phosphoric Acid 55%*	R
Hydrochloric Acid 36%	RS
Sulphuric Acid 10%	R
Phosphoric Acid 20%	R
Nitric Acid 10%	RS
Lactic Acid 10%	R
Citric Acid 10%	R
Oleic Acid (sat.)	RS
Potassium Hydroxide 50%	R
Ammonia Solution 10%	R
Brake Fluid	RS
Tap Water	R
Chlorinated Water	R

*\*Tested at 24 hr spot test.*

*R: Resistant*

*RS: Resistant with slight discoloration*

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- ▲ 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 endeavor to ensure that any advice, recommendation or information we may give in product literature is accurate and correct. However, due to the fact that we have no direct or continuous control over where or how the products are applied, DCP cannot accept any liability either directly or indirectly arising from the use of DCP products, whether or not in accordance with any advice, specification, recommendation or information given by us.

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