

Solvent free, nontoxic epoxy protective coating for concrete and metal

#### **DESCRIPTION**

Strongcoat Epoxy is a solvent free, non-toxic epoxy resin protective coating with outstanding mechanical and chemical properties.

Strongcoat Epoxy is supplied as a two component product in pre-weighed base and hardener packs, ready for site mixing.

#### **APPLICATIONS**

Strongcoat Epoxy is designed for internal applications such as:

- » Protective coating for concrete and steel.
- Internal protective lining for potable water concrete or steel tanks.
- >> Wall and floor coating in food processing plants, grain silos, dairies, breweries, hospitals, pharmaceutical industries and car parks.
- » High chemical resistant protective coating for the sewage and waste water industry.

#### **ADVANTAGES**

- Produces a surface that is both easy to clean and does not induce bacterial and fungal growth.
- Excellent resistance to a variety of chemicals.
- » Easy to clean with a smooth, hard and glossy finish.
- » Non-toxic.
- Exhibits good mechanical properties.

#### **STANDARDS**

Strongcoat Epoxy complies with the requirements of BS 6920 for using in contact with potable water.

#### **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 21/2.

## **TECHNICAL PROPERTIES:**

Colour: Various

Specific gravity:  $1.6 \pm 0.1$ 

Solid content: 100%

100 min @ 25°C Pot life: 45 min @ 35°C

Re-coatable time:

Minimum 4 hr @ 25°C Maximum 24 hr @ 25°C

Full cure: After 7 days @ 25°C

Refer to DCP chemical Chemical resistance:

resistance table

Bond strength over C25/30 concrete: **ASTM D4541** 

≥ 2 MPa @ 7 days (substrate failure)

Compressive strength:

BS 6319-2

≥ 70 MPa @ 7 days

Tensile strength:

BS 6319-7

≥ 15 MPa @ 7 days

Flexural strength:

≥ 30 MPa @ 7 days BS 6319-3

Taber abrasion resistance:

(1000 g, 1000 cycle) ASTM D4060, weight

60 milligram

loss

CS17 wheel

VOC: ≤ 10 g/ltr

**ASTM D2369** (comply with LEED)

## **PRIMING**

Strongcoat Epoxy is designed to be applied over well prepared steel and concrete substrates directly without a primer. If the application will be taken place over other substrates, please consult DCP's Technical department for advice.



#### **MIXING**

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

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

#### Notes:

- Strongcoat epoxy 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 Epoxy 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 using DCP Solvent. Hardened material must be cleaned mechanically.

## **PACKAGING**

Strongcoat Epoxy is available in 5 kg packs (3.1 litre) 10 kg (6.25 litres), 15 kg (9.35 litres) and 20 kg (12.5 litres) packs.

## **COVERAGE**

Approximately 0.16 kg/m² per coat. Two coats should be applied to achieve a total of 200 microns dry film thickness.

#### **OCCASSIONAL SPILLAGE**

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

Organic Acids	
Oleic Acid sat.	RS
Citric Acid 25%	R
Vinegar 10%	RS
Inorganic Bases	
Sodium Hydroxide 50%	R
Ammonia Solution 10%	R
Potassium Hydroxide 50%	R
Aquous Solutions	
Sodium Chloride sat	R
Tap Water	R
Chlorinated Water	R
Dead Sea Water	R
Solvents	
White Spirit	R
Xylene	R
Toluene	R
Acetone	R
Oils & Fuels	
Benzyl Alcohol	RS + SS
Brake Fluid	R
Engine Oil	R
Diesel	R
Kerosene	R
Detergents & Soaps	R
Inorganic Acids	
Sulphuric Acid 25%	R
Phosphoric Acid 20%	RS
Hydrochloric Acid 10%	R
Nitric Acid 25%	RS

#### **STORAGE**

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

If these conditions are exceeded, contact DCP Technical Department for advice.

## **CAUTIONS**

## **HEALTH AND SAFETY**

Strongcoat Epoxy 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 Epoxy is nonflammable.

#### **CHEMICAL RESISTANCE**

Based on test method ASTM D1308, after 7 days immersion in the below chemicals.

Nitric Acid 10%	RS
Phosphoric Acid 20%	RS
Hydrochloric Acid 10%	RS
Vinegar 5%	RS
Sulphuric Acid 25%	RS
Ammonia Solution 10%	R
Tap Water	R
Sodium Chloride Sat.	R
Diesel	R
Engine Oil	R
Brake Fluid	R

R: Resistant

RS: Resistant with slight discoloration

SS: Slight softining



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

## **Don Construction Chemicals India Private Limited**

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