

# Strongcoat EN100

High performance chemical resistant epoxy novolac lining



## DESCRIPTION

Strongcoat EN100 is a two component seamless epoxy novolac coating designed for areas where excellent wear and chemical resistance is required. Strongcoat EN100 is suitable for use on concrete and steel surfaces and can be used with or without anti-slip aggregates.

## APPLICATIONS

Strongcoat EN100 is designed for use in applications, such as:

- » Chemical plants.
- » Sewage treatment plants.
- » Pharmaceuticals industry.
- » Petroleum refineries.
- » Storage areas.
- » Loading docks.
- » Food processing areas.

## ADVANTAGES

- » Excellent chemical resistance.
- » Superior adhesion to concrete and mild steel.
- » High wear resistance.
- » Resistant to a wide range of chemicals.
- » Easy and fast application.

## 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.

## PRIMING

Strongcoat EN100 is designed to be used without a primer. However, for highly porous substrates, Strongcoat Primer S is recommended.

## TECHNICAL PROPERTIES:

Finish:	Gloss
Colour:	Grey
Solid content:	95%
Mixed density:	1.35 ± 0.05 g/cm <sup>3</sup>
Full cure:	7 days @ 25°C
Tack-free time:	4 hr @ 25°C
Pot life:	40 min @ 25°C
Flexural strength: ASTM C580	≥ 40 MPa
Over-coating time:	≤ 18 hr @ 23°C ≤ 12 hr @ 35°C
Tensile strength: ASTM D638	≥ 20 MPa
Compressive strength: BS 6319, Part 2	≥ 50 MPa
Bond strength: ASTM D4541	≥ 2 MPa (concrete failure)
Shore D hardness:	80 ± 5
Water absorption: ASTM D570	≤ 0.2%
Taber abrasion resistance: ASTM D4060, weight loss	
CS17 wheel, 1000 g, 1000 cycle	≤ 75 mg
CS10 wheel, 1000 g	≤ 0.5 mg/cycle
VOC: ASTM D2369	≤ 10 g/ltr (comply with LEED)

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## 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 until a uniform colour and consistency are achieved.

## APPLICATION

### *Coating Finish:*

Strongcoat EN100 can be applied by stiff nylon brush, short nap roller and airless spray machine. The first coat should be applied to obtain a continuous uniform coating. The second coat should be applied within the overcoating time to achieve the maximum adhesion between the two coats.

### *Antislip Finish:*

The base coat should be applied at a minimum film thickness of 250 microns and then fully blinded with the chosen Antislip Aggregate. Once the base coat has reached initial cure, all excess aggregates should be removed before a further application of Strongcoat EN100 topcoat.

The topcoat should be applied at a minimum film thickness of 400 micron to 750 microns depending on Antislip Aggregate size used.

## PACKAGING

Strongcoat EN100 is available in 5 kg packs.

## OCCASSIONAL SPILLAGE

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

Acetic Acid 10%	R
Benzene	R
Benzyl Alcohol	R
Brake Fluid	R
Citric Acid 50%	R
Diesel	R
Hydrochloric Acid 35%	RS
Kerosene	R
Lactic Acid 20%	R
Nitric Acid 10%	R
Phosphoric Acid 10%	R
Potassium Hydroxide 50%	R
Sodium Hydroxide 50%	R
Sulphuric Acid 98%	RS
Toluene	R
Xylene	R

*R: Resistant*

*RS: Resistant with slight discolouration*

## COVERAGE

### *Standard coverage:*

Strongcoat Primer S: 5 m<sup>2</sup>/kg

Strongcoat EN100 (base coat): 0.33 kg/m<sup>2</sup>.

Strongcoat EN100 (topcoat): 0.33 kg/m<sup>2</sup>.

### *Antislip coverage:*

Strongcoat Primer S: 5 m<sup>2</sup>/kg.

Strongcoat EN100 (base coat): 0.33 kg/m<sup>2</sup>.

Antislip aggregate #2 or #3: 2 – 4 kg/m<sup>2</sup>.

Strongcoat EN100 (topcoat): 0.50 kg/m<sup>2</sup>.

Approximate system thickness: 1.5 mm

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## STORAGE

Strongcoat EN100 has a shelf life of 12 months from date of manufacture if stored in dry conditions at a temperature of 25°C in original unopened packs.

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

## CAUTIONS

## HEALTH AND SAFETY

Strongcoat EN100 should not come in contact with skin or eyes. Goggles and gloves should be used. In case of 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 Material Safety Data Sheet.

## FIRE

Strongcoat EN100 is nonflammable.

## CHEMICAL RESISTANCE

**Based on test method ASTM D1308, after 14 days immersion in the below chemicals:**

Acetic Acid 30%	RS
Antifungus	R
Benzene	RS
Brake Fluid	R
Potassium Hydroxide 50%	R
Citric Acid 50%	R
Diesel	R
Distilled Water	R
Ethanol	R
Ethylbenzene	R
Ethylene Glycol	R
Glycerin	R
Hand Wash Soap	R
Hydraulic Oil	R
Hydrochloric Acid 20%	RD
Hydrochloric Acid 32%	RD
Hypex 10%	R
Isopropanol	R
Lactic Acid 20%	RD
Lactic Acid 50%	RD
Methanol	R
Oleic Acid	R
Phosphoric Acid 30%	RD
Phosphoric Acid 85%	RD
Silicone Oil	R
Sodium Hydroxide 50%	R
Sodium Chloride 20%	R
Sugar 10%	R
Sulfuric Acid 30%	RD
Toluene	R
Triethanolamine	R
Water	R
Xylene	R

*R: Resistant*

*RS: Resistant with slight discolouration*

*RD: Resistant with obvious discolouration*



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## MORE FROM DON CONSTRUCTION PRODUCTS

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.

## CHEMICAL RESISTANCE

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

Acetic Acid 10%	R
Lactic Acid 20%	RD
Nitric Acids 10%	RD
Phosphoric Acid 10%	RD
Hydrochloric Acid 10%	R
Sulphuric Acid 25%	RD

*R: Resistant*

*RD: Resistant with obvious discolouration*

*Note: For a comprehensive list of chemicals tested with Strongcoat EN100, please refer to the Chemical Compatibility document located on the Strongcoat EN100 product page on our website.*

### 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.