

# 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. The material may be used with or without antislip aggregates and can also be laminated with glass fibre cloth to achieve a high build, chemical resistant lining.

## 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.
- » Able to withstand exposure to chemicals with PH ranging from 1 – 14 @ 25°C.
- » Solvent free, 100% solids.
- » 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.

## 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)

# Strongcoat EN100

## PRIMING

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

## 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

### *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 over coating 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 top coat.

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

### *Use with glass fibre reinforcement:*

To increase the thickness of the system or where necessary to bridge fine cracks in the substrate, the glass fibre mat is recommended as reinforcement.

Apply one coat at a wet film thickness of 250 microns and while still wet, lay the fibre glass mat directly onto the wet layer and press firmly into the first coat. Wet out mat with additional mixed Strongcoat EN100 until it is saturated. Use a ribbed roller to remove air from the mat allow reinforcement to cure.

## PACKAGING

Strongcoat EN100 is available in 5 kg packs.

## CHEMICAL RESISTANCE

**Strongcoat EN100 is resistant to the spillage and splash of the following chemicals:**

**ASTM D1308 @ 24 hours**

Acetic Acid 10%	R
Benzene	R
Brake Fluid	R
Citric Acid 25%	R
Diesel	R
Ethanol 76%	R
Ethylene glycol	R
Fatty Acid	R
Formaldehyde	R
Gasoline (car fuel)	R
Isopropanol	R
Jet Fuel	R
Kerosene	R
Lactic Acid 20%	RD
Methyl Isobutyl Ketone	R
Mineral Spirit	R
Nitric Acid 10%	RD
Phosphoric Acid 55%	RD
Potassium Hydroxide 50%	R
Propylene glycol	R
Sodium Hydroxide 30%	R
Tartaric Acid 10%	R
Toluene	R
Xylene	R

*R: Resistant*

*RD: Resistant with obvious discolouration*

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

# Strongcoat EN100

## 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 (top coat): 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: 0.35 – 0.75 kg/m<sup>2</sup>.

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

Approximate system thickness: 1.5 mm

## 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, DCP Technical Department should be contacted 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 not flammable.

## CHEMICAL RESISTANCE

**Based on test method ASTM D1308 after 7 days immersion, Strongcoat EN100 resists the following chemicals with some discolouration:**

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.*



# Strongcoat EN100

## 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.

**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.