Solvent free epoxy floor coating



Description

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

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

Applications

Strongcoat Epoxy F is used as a high chemical resistance and hard wearing floor coating system for a wide range of applications including:

- ▲ Show rooms.
- ▲ Warehouses.
- ▲ Car parks.
- ▲ Soft drink and beverage production areas.
- ▲ Dairies production areas.
- ▲ Production, maintenance and assembly areas.
- ▲ General food processing and manufacturing plants.

Advantages

- ▲ Produces a seamless, glossy, glass-like surface that is both easy to clean and does not induce bacterial and fungal growth.
- ▲ Excellent chemical and mechanical resistance.
- ▲ Easy to clean with a smooth, hard and glossy finish.
- ▲ Non-toxic.
- ▲ Exhibits good mechanical properties.
- ▲ Easy application.

Method of Use

Substrate Condition

The substrate must be clean, dry, even, dense and free from oil, grease, dust and other contaminants. A clean surface will ensure maximum adhesion between the substrate and the coating.

Concrete floors must have a minimum compressive strength of 25 N/mm² and a maximum concrete relative humidity of 80% (max. moisture content of 4%), relative humidity can be measured using a hygrometer. Concrete relative humidity should be less than 80% for concrete 28 days old or more.

Technical Properties:

Colour: Various

Specific gravity: 1.6 ± 0.1

Solid content: 100%

Pot life: 100 min @ 25°C

45 min @ 35°C

Re-coatable time:

Minimum 4 hr @ 25°C Maximum 24 hr @ 35°C

Full cure: After 7 days @ 25°C

Chemical resistance: Refer to DCP chemical

resistance table

Shore D Hardness:

ASTM D2240 80 ± 2

Bond strength over

C25/30 concrete: ≥ 2 MPa @ 7 days (substrate failure)

ASTM D4541

Compressive strength: ≥ 70 MPa @ 7 days

Tensile strength: ≥ 15 MPa @ 7 days

BS 6319-7

Flexural strength: BS 6319-3 ≥ 30 MPa @ 7 days

Taber abrasion

resistance:

(1000g, 1000 cycle)

ASTM D4060, weight

A31101 D4000, We

60, weight 60 milligram

loss

CS17 wheel

VOC: ASTM D2369

≤ 10 g/ltr

Surface Preparation

Unsound layers and contaminated concrete surfaces must be prepared using mechanical surface removing equipment. Acid etching can be used only in well ventilated areas. Areas deeply contaminated by oil or grease, such areas should be treated by hot compressed air.



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Priming

Strongcoat Epoxy F is designed to be applied over well prepared substrates directly without a primer. However, for highly porous substrates, Strongcoat Primer or 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.

Coating

Use brush or lambs wool roller, or airless spray machine to apply the mixed Strongcoat Epoxy F onto the prepared surfaces.

Apply 2 coats of Strongcoat Epoxy F at approximately $0.24 - 0.32 \text{ kg/m}^2$ per coat.

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.

Remarks

- ▲ Strongcoat Epoxy F 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 F 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).
- ▲ In certain cases the Base of the product can be supplied uncoloured and needs the addition of a colour pack. In such cases, mix the components of the colour pack and Base for 2 minutes, then add the entire content of the Hardener to the mixture and mix thoroughly for 3 minutes.

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

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Cleaning

All tools should be cleaned immediately using DCP Solvent. Hardened material must be cleaned mechanically.

Packaging

Strongcoat Epoxy F is available in 5 kg packs (3.1 litre) and 30 kg (18.75 litres) packs.

Coverage

Approximately 0.24 - 0.32 kg/m² per coat. Two coats should be applied to achieve a total of 300 - 400 microns dry film thickness.

Storage

Strongcoat Epoxy F 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 F.

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

Cautions

Health and Safety

Strongcoat Epoxy F 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 Material Safety Data Sheet.

Fire

Strongcoat Epoxy F is not flammable.

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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.

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