Heavy duty solvent free coal tar modified epoxy based flooring system



# Description

Strongcoat MD is a heavy duty solvent free coal tar modified epoxy flooring system. Components of product composed of a base, hardener and graded filler, which when mixed form a fluid, homogenous slurry. After spreading Strongcoat MD slurry and while still wet, hard wearing silica aggregates should be broadcasted onto the slurry.

Strongcoat MD cures to a durable, anti-slip, extremely hard wearing surface. Depending on the used Antislip Aggregate, final dry thickness can be (2 - 2.5 mm) for normal traffic.

# **Applications**

Strongcoat MD is used to provide a hard wearing antiskid surface for concrete and steel floors for a wide range of applications such as:

- ▲ Car parks.
- A Roads and bridges.
- ▲ Offshore oil platforms.
- ▲ Ship decks.
- ▲ Industrial floors.
- ▲ Helicopter decks (pad).

# Advantages

- Hard wearing system.
- ▲ Non-slip.
- ▲ Solvent free.
- ▲ Lightweight.
- ▲ Fast cure.
- ▲ Waterproof.
- ▲ Flexible.
- A Resists a wide range of chemicals, consult DCP technical department for more details.

# **Standards**

Strongcoat MD complies with EN 13813, SR-B2.0-AR0.5-IR10.

#### Method of Use

# Substrate Preparation

The substrate must be clean, dry, even, dense and free from oil, grease, dust and other contaminants.

# Technical Properties:

Specific gravity:  $1.75 \pm 0.05$ 

60 - 80 min @ 15°C

Working life: 40 - 50 min @ 25°C

20 - 30 min @ 35°C

Foot traffic: After 24 hr @ 25°C

Vehicular traffic: After 48 hr @ 25°C

Full cure: 7 days @ 25°C 4 days @ 35°C

Maximum wear

depth: 0.01 mm

BS EN 13892-4

Bond strength: > 2 MPa

BS EN 13892-8 (concrete failure)

> 10 N.m

Nil

Impact resistance: ISO 6272-2

Water permeability

(5 bar): DIN 1048

Water absorption: ≤ 0.01%

ASTM D570

**ASTM D2369** 

VOC: < 10g/ltr

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 with hygrometers. Concrete relative humidity should be less than 80% for concrete of 28 days old or more, for low W/C ratio concrete floors, 80% hygrometer reading or less can be achieved before 28 days age. Steel substrates should be blast cleaned to a minimum of Sa2½.

Contact DCP Technical Department for further details.

# **Surface Preparation**

Unsound layers and contaminated concrete surfaces must be prepared using mechanical surface removing equipment.

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For deeply contaminattion by oil or grease, such areas should be treated with hot compressed air.

# **Priming**

Concrete substrates should be primed with Strongcoat Primer. Use a lambs wool roller to apply the primer. Apply Strongcoat MD whilst the primer still wet.

# Mixing

To avoid inconsistent workability and pot life, make sure the materials to be used are stored in a shaded area and protected from extremes of temperatures for at least 24 hours prior to application. Prior to mixing, stir the liquid components of Strongcoat MD (base & hardener), mix thoroughly for at least 3 minutes using a forced action mixer. Add the filler and mix until a homogenous mixture is formed, this will take about 4 - 5 minutes.

# Slurry Laying

Work in lanes of width not exceeding 3 m. Spread the slurry on the prepared surface at the required thickness by rack. Care should be taken when joining the lanes, to achieve a smooth connection. It is recommended to mask off edges with tape which is then removed while Strongcoat MD is still wet.

Dressing the silica aggregate should be applied immediately after laying of Strongcoat MD slurry. Aggregate should be allowed to fall vertically until the surface is saturated and totally covered. Remove excess aggregate after initial curing of Strongcoat MD. Excess aggregates can be reused if not contaminated during removal.

# Points to be Considered

- ▲ Strongcoat MD should not be applied on to surfaces known to suffer from damp rising.
- ▲ Ramps should be treated with larger size silica aggregates.
- → Strongcoat MD should not be applied at temperatures below 10°C or where ambient relative humidity exceeds 80%.

#### Cleaning

Strongcoat MD can be removed with DCP solvent prior to setting.

Chemical Resistance (ASTM D543)	
Acids (m/v)	
Hydrochloric Acid 10%	Resistant
Nitric Acid 10%	Resistant
Phosphoric Acid 10%	Resistant
Sulphuric Acid 10%	Resistant
Alkalis (m/v)	
Ammonia 15%	Resistant
Sodium Hydroxide 25%	Resistant*
Solvents and organics	
Oils, vegetables & minerals	Resistant
Ferric Chloride 15%	Resistant
Kerosene	Resistant
White spirit	Resistant
Xylene	Resistant
Acetone	Resistant
Aqueous solutions	
Water	Resistant
Sea water	Resistant
Raw sewage	Resistant
Sodium chloride sat.	Resistant
Chlorinated water	Resistant
Fuels	
Brake fluid	Resistant
Diesel	Resistant
Kerosene	Resistant
UV resistance	Resistant*

Note: Slight discoloration in some cases may occur without affecting the performance of the coat.

# **Packaging**

Strongcoat MD is available in 30 kg packs. Strongcoat Primer is available in 5 kg packs. Silica aggregates is available in 25 kg bags.

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#### Coverage

Strongcoat MD:  $4.36 \text{ kg/m}^2$  @ 2.5 mm thickness. Strongcoat Primer:  $5 \text{ m}^2/\text{kg}$  @ 200 microns DFT. Silica aggregates:  $5 - 6 \text{ kg/m}^2$  using Antislip Aggregate #2, and  $6.5 - 7.5 \text{ kg/m}^2$  using Antislip Aggregate #0.

# Storage

Strongcoat MD and primer have a shelf life of 12 months from date of manufacture if stored at temperatures between 5°C and 40°C.

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

# **Cautions**

# Health and Safety

Strongcoat MD and its primer should not come into contact with skin and eyes.

In case of contact with eyes wash immediately with plenty of water and seek medical advise promptly.

For further information refer to the Safety Data Sheet.

#### Fire

DCP solvent is a flammable material and should not be used near a naked flame. Do not smoke near DCP solvent.

Flash Point: of Strongcoat MD and its primer are above 50°C.

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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.
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#### Note:

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