Strongcoat Conductive



Conductive floor with resistance between 5x10⁴ and 1x10⁶ ohms

DESCRIPTION

Strongcoat Conductive is a flow applied solvent free, electrostatic conductive epoxy floor coating especially designed to provide electrostatic control properties to a variety of substrates in wide range of applications.

Strongcoat Conductive comprises of an epoxy primer, conductive base coat and 2.0 mm flow applied topcoat.

APPLICATIONS

Strongcoat Conductive has a resistance between 5×10^4 and 1×10^6 ohms. Strongcoat Conductive is suitable for use in areas where a static conductive floor is required, such as:

- » Electronic manufacturing facilities.
- » Hospital operation theatres.
- » Hazardous dust and chemical environments.

ADVANTAGES

- Provides a conductive floor for static electricity to pass through to earth controlling static electricity.
- » Provides anti-spark (spark-proof) whenever required for safety to prevent sparks.
- » Provides a smooth finish.
- » Hard wearing surface that can be subjected to heavy foot traffic and forklift traffic.
- >> Chemical resistant.

METHOD OF USE

SUBSTRATE PREPARATION

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

Concrete floors must have a minimum compressive strength of 25 MPa and a maximum concrete relative humidity of 80% (max. moisture content of 4%). Relative humidity can be measured by using hygrometers.

Concrete relative humidity should be less than 80% for concrete of 28 days old or more.

Unsound layers and contaminated concrete surfaces must be prepared using mechanical surface removing equipment. In case of areas deeply contaminated by oil or grease, such areas should be treated with hot compressed air.

ELECTRICAL PROPERTIES:

Surface resistance*: 5 x 10

ASTM F150

5 x 10⁴ to 1 x 10⁶ ohms

*The electrical resistance values are for 2.0 mm thick topcoat when the system is applied in accordance with the mentioned instructions. Failure to follow these instructions may cause differences in these values. Consult DCP Technical Department for more information.

PHYSICAL PROPERTIES FOR TOPCOAT:

Mixed density: $1.7 \pm 0.10 \text{ g/cm}^3$

Pot life: 40 - 60 min @ 25°C

Cure time:

Foot traffic 24 hr @ 25°C Vehicular traffic 48 hr @ 25°C

Shore D hardness:

85 ± 5 @ 14 days

ASTM D2240

Compressive strength:

≥ 70 MPa @ 7 days

BS 6319-2

Flexural strength: BS 6319-3

≥ 27 MPa @ 7 days

Tensile strength:

BS 6319-7

≥ 10 MPa @ 7 days

VOC: < 20 g/ltr

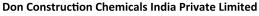
PHYSICAL PROPERTIES FOR BASE COAT:

Colour: Black

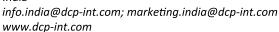
Mixed density: $1.05 \pm 0.05 \text{ g/cm}^3$

Pot life: 1 - 2 hr @ 25°C

Tack free time: 2 - 3 hr @ 25°C



Kaveripettai, Thiruvallur Dist., Chennai, Tamil Nadu RIICO Industrial Area, Manda Chomu, Jaipur India





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PRIMING

Concrete substrates should be primed with Strongcoat Primer. The primer should be allowed to cure for 24 hours. Use lambs wool roller to apply the primer. More than one coat may be required for highly porous or textured surfaces.

Self-adhesive copper tape should be firmly applied to the cured Strongcoat Primer so that no part of the floor is more than 2 meters away from the copper tape.

Make sure that the perimeter tape is overlapped and applied at 300 - 500 mm from the edge of the wall. Extend the copper tape to adequate number of earthing points depending on the floor area and condition.

Note: For the best results, always use a minimum of 2 earthing points even in small installations.

STRONGCOAT CONDUCTIVE BASE COAT

Stir each component of the Strongcoat Conductive Base Coat thoroughly before use. Transfer the entire contents of the base into the hardener container and, using a heavyduty, slow-speed drill fitted with a mixing paddle, mix for at least 3 minutes until a uniform black colour is achieved.

Once mixing is complete, apply using a brush or lambswool roller.

STRONGCOAT CONDUCTIVE TOPCOAT

Taking care to ensure that the bottom and sides are thoroughly scraped, transfer the entire contents of the resin and hardener and colour pack into a separate mixing container.

Using a jiffy-type mixer attached to a slow-running electric drill, mix for approximately for 2 minutes. Once the Strongcoat Conductive hardener, resin and colour pack have been mixed, transfer the entire contents into a Casco or Creteangel-type mixer, taking care to ensure that the bottom and sides are thoroughly scrapped.

Start the mixer and add the entire contents of the Strongcoat Conductive Topcoat filler container, making sure that the filler is completely dry and free of lumps.

Continue mixing for approximately 2 minutes. Once mixing is complete, apply the mixed materials to the primed surface at the required thickness using a rack.

CHEMICAL RESISTANCE

Occasional spillage after full cure (7 days @ 25°C)

Lactic Acid 10%	R
Oleic Acid (sat.)	R
Citric Acid 25%	R
Vinegar 10%	R
Sodium Hydroxide 50%	R
Ammonia Solution 10%	R
Sodium Chloride (sat.)	R
Water	R
Chlorinated Water	R
Dead Sea Water	R
White Spirit	R
Xylene	R
Acetone	R
Benzyl Alcohol	R
Brake Fluid	R
Diesel	R
Kerosene	R
Sulphuric Acid 25%	R
Phosphoric Acid 20%	RS + SS
Hydrochloric Acid 36%	RS + SS
Nitric Acid 10%	RS

R: Resistant

RS: Resistant with slight discolouration

SS: Slight softening

Care should be taken when joining lanes to achieve a smooth connection. It is recommended to mask off edges with tape, which should be removed while the product is still wet.

Spike-roll the surface thoroughly while the material remains wet to ensure a uniform finish.

PACKAGING

Strongcoat Primer: 5 kg packs.

Strongcoat Conductive Basecoat: 5 kg packs. Strongcoat Conductive Topcoat: 15 kg packs.

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COVERAGE

Strongcoat Primer: 5 m²/kg.

Strongcoat Conductive Basecoat: 4.5 m²/kg.

Strongcoat Conductive Topcoat: 3.4 kg/m² @ 2 mm

thickness.

Actual coverage can vary depending on the substrate

conditions.

STORAGE

Strongcoat Conductive base has a shelf life of 12 months from date of manufacture if stored at temperatures between 10°C and 35°C.

The material may form crystals when stored at temperatures below 10°C, in such cases, conditioning for 1 - 2 days at temperatures between 30 - 35°C with simple manual mixing is needed before application.

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

CAUTIONS

HEALTH AND SAFETY

Strongcoat Conductive and Base should not come into contact with skin and eyes.

In case of contact with eyes, immediately flush with plenty of water and seek medical attention.

For further information, refer to the Material Safety Data Sheet.



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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.

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Note

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