

Strongcoat PA

High solids epoxy polyamide coating



Description

Strongcoat PA is a high solids epoxy polyamide coating for use over well prepared steel, concrete and previously coated surfaces. The product has excellent adhesion properties and good flexibility and resistance to abrasion and chemicals.

Applications

Strongcoat PA is designed for use directly on metal substrates in high performance architectural applications and on primed substrates for many applications in industrial environments such as:

- ▲ Institutional, industrial, commercial, and laboratories walls.
- ▲ Metal structures.
- ▲ Chemical processing equipment.
- ▲ Food and chemical industries, laundries and power plants.
- ▲ Exterior protection of pipes and tanks.

Advantages

- ▲ High chemical and mechanical resistance.
- ▲ Excellent adhesion to concrete and steel surfaces.
- ▲ High abrasion, wear and impact resistance.
- ▲ Good flexibility, suitable for low temperature exposure conditions.
- ▲ Cost effective.
- ▲ Easy application.

Method of Use

Substrate Preparation

Steel Surfaces:

All surfaces should be grit blasted to reach a bright finish meeting the requirement of Swedish Standard SA 2 1/2. Do not leave blasted steel uncoated overnight.

Concrete surfaces:

The Substrate should be sound, clean and free from contamination. Surface Laitance should be removed by grit blasting or water jetting. All blow holes should be filled with epoxy paste such as Quickmast 341.

Technical Properties:

Colour:	Wide range of colours
Finish:	Gloss
Mixed density:	1.25 ± 0.05 g/cm ³
Solid content:	70 ± 2%
Volume solids:	56 ± 2%
Pot life:	180 - 200 min @ 25°C
Tack free time:	3 - 4 hr @ 25°C
Dry time, dry hard: ASTM D1640	1 - 2 hr @ 25°C
Dry film thickness:	65 - 100 microns per coat
Minimum over coating time:	4 hr @ 25°C
Maximum over coating time:	7 days @ 25°C
Minimum application temperature:	10°C
Full cure:	7 days @ 25°C
Bond strength: ASTM D4541	≥ 7 MPa (concrete failure) ≥ 7 MPa (on steel)
Impact resistance: ASTM D2794	10 N.m
Flexibility: ASTM D522, 180° bend, 1/4" mandrel	Passes
Taber abrasion resistance: (1000 g, 1000 cycle) ASTM D4060, weight Loss CS17 wheel	80 mg @ 14 days
Dry heat resistance:	93°C (No loss of adhesion was observed @ 180° bend, 5/8" (16 mm) mandrel
VOC: ASTM D2369	< 450 g/ltr

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Priming

Steel:

Strongcoat PA is designed to be used without a primer. However, on steel surfaces, use Strongcoat PA Primer when rust inhibitive primer is specified as the first coat.

Concrete:

Highly porous concrete surfaces should be primed with Strongcoat Primer S.

Mixing

To avoid inconsistent workability and pot life, make sure that the materials to be used are stored in shaded area and protected from extremes of temperatures, for at least 24 hours prior to application.

Prior to mixing, stir individual components of Resin, Hardener and colour pack. Add the entire contents of the colour pack into the base container and mix with for 2 minutes till a uniform colour is achieved.

Add the entire contents of the hardener container to the mixed colour pack and base and mix thoroughly for at least 3 minutes.

Coating

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

Apply 2 coats of Strongcoat PA at 4.5 m²/kg per coat to achieve 100 microns dry film thickness, second coat should be applied at a right angle to the first coat.

The second coat may be applied as soon as the first coat has initially dried. Drying time will depend on the substrate and the ambient conditions.

If the over coating time is exceeded the first coat must be abraded with sand paper prior to the application of the second coat.

Adequate ventilation must be provided to ensure that necessary drying and curing of the material is achieved.

Notes:

- ▲ Strongcoat PA should not be applied at temperatures below 10°C or where ambient relative humidity exceeds 85%.

Hardness after chemical/solvent exposure: ASTM D3363

Chemical	Exposure	Hardness
5% Sulphuric Acid	1 hr	minimum 7B
15% Hydrochloric Acid	1 hr	minimum 7B
20% Sodium Hydroxide	1 hr	minimum 7B
Aliphatic hydrocarbon solvent	2 hr	minimum 7B
Methyl alcohol	1 hr	minimum 7B
Motor oil (10W30)	2 hr	minimum 7B
Vegetable oil	2 hr	minimum 7B

Occasional Spillage.

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

Organic Acids

Acetic Acid 10%	R
Lactic Acid 10%	R
Citric acid	R

Inorganic Bases

Sodium Hydroxide 50%	R
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Aqueous Solutions

Sodium Chloride sat.	R
Tap water	R

Solvents

Benzyl Alcohol	SS
White Spirit	R
Acetone	SS

Oils & Fuels

Brake Fluid	R
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- ▲ Strongcoat PA should not be applied onto surfaces known to suffer from rising damp.
- ▲ In case of spray applications, airless spray machines should be used.

Cleaning

All tools should be cleaned immediately after application using DCP Solvent. Hardened materials must be cleaned mechanically.

Packaging

Strongcoat PA is available in 5 kg packs (4 litre) and 20 kg packs (16 litre).

Coverage

4.5 m²/kg per coat to achieve 100 microns dry film thickness.

Two coats should be applied to achieve 150 to 200 microns dry film thickness.

Storage

Store in a dry area out of direct sunlight at temperatures between 5°C and 35°C.

Strongcoat PA has a shelf life of 12 months from date of manufacture if stored in proper conditions and unopened packs.

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

Cautions

Health and Safety

Strongcoat PA 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 Safety Data Sheet.

Fire

Strongcoat PA and DCP-Solvent are flammable. Ensure adequate ventilation. Do not use near a naked flame and do not smoke during use.

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:

We endeavor to ensure that any advice, recommendation or information we may give in product literature is accurate and correct. However, due to the fact that we have no direct or continuous control over where or how the products are applied, DCP cannot accept any liability either directly or indirectly arising from the use of DCP products, whether or not in accordance with any advice, specification, recommendation or information given by us.

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