Strongcoat PA500

Polyaspartic aliphatic flooring System

DESCRIPTION

Strongcoat PA500 is a two-component, is a high performance, solvent free, rapid curing flooring product based on the latest polyaspartic / polurea technologies. Strongcoat PA500 provides excellent colour and gloss retention and is resistant to most fuels, oils, solvents and cleaners.

Strongcoat PA500 can be rapidly and consistently applied using airless spray, low pressure plural component, roller, squeegee or notched trowel application.

With a tack free time of approx. 60 min re-use times are incredibly short saving customers valuable production time.

APPLICATIONS

Strongcoat PA500 is used as protective, decorative, high chemical resistance and hard wearing floor coating system for a wide range of applications including:

- Concrete garage floors, patios and walkways.
- Car park decks.
- Warehouse flooring.
- Automotive sales and service areas.
- Aircraft hangers.
- Restaurants kitchens and dining areas.
- Retail shops and shopping malls.
- Hospital flooring.

ADVANTAGES

- Excellent colour and gloss retention.
- Excellent abrasion resistance.
- Excellent working time.
- Excellent adhesion to concrete substrates.
- Excellent chemical resistance.
- Resistant to most chemicals, solvents, acids and caustics.
- Can be used for in-door and outdoor applications.
- Stable over a wide temperature range.
- Displays good flexibility and impact resistance compared to standard epoxies.
- Excellent for grind and seal applications.
- Cures to a very clear finish when not pigmented.

TECHNICAL PROPERTIES:

Colour:	Clear, can be pigmented
Mixed density:	1.1 ± 0.1 g/cm^3
Pot life @ 25°C*:	10 min
Tack free time:	1 hr
Pedestrain traffic time: Light Heavy	 2 - 4 hr 5 - 8 hr
Overcoating time:	5 hr (maximum)
Application temperature:	5 - 50°C
Shore D Hardness: ASTM D2240	80 ± 5
Tensile strength**: ASTM D638	30 ± 5 MPa
Elongation at break: ASTM D638	≥ 80%
Bond strength on concrete: ASTM D4541	≥ 2 MPa (concrete failure)
Taber abrasion resistance: (1000 g, 1000 cycle) ASTM D4060, weight loss CS17 wheel	< 28 milligram
Impact resistance: Direct/reverse 18MPa/18MPa ASTM D2794	No cracking

**Additional pot life can be achieved by adding Strongcoat PA500 Solvent at a rate of 10% to 20% by volume to the B-Side component.*

***When applied as a full system with recommended primer.*

Note: All test results and timings provided are based on tests carried out in laboratory conditions. Substrate and atmospheric temperature, humidity, condition and application thickness will all influence these results and therefore they must be used as a guide only.

Strongcoat PA500

METHOD OF USE

SURFACE PREPARATION

All cementitious substrates must be structurally sound. Surfaces must be entirely free of oil, grease, paint, dust, curing agents, release agents or other surface contamination. Loose or unsound material should be removed. Sweep and vacuum to remove all dust and debris.

Steel substrates should be prepared to a class 2 ½ near white blast finish with a surface profile of 80 microns.

Mask all adjacent surfaces and protect the surrounding area from overspray. Do not apply unless the substrate temperature is 3°C or greater than dew point.

PRIMING

Substrates should be primed with Strongcoat PA500 Primer at a coverage rate of 5 - 10 m^2/kg, depending on substrate porosity. Second coat may be needed if the first coat was fully absorbed by the substrate.

Strongcoat PA500 must only be applied while Strongcoat PA500 Primer is tacky in order to achieve optimum adhesion strength. Do not apply if primer has become tack free.

Strongcoat PA500 Primer tackiness period depends on ambient and substrate temperature, below table should be followed for guidance in order to apply Strongcoat PA500 within the tackiness period:

Temperature	Tackiness period
25°C	2 - 5 hr
40°C	40 - 90 min

MIXING

Thoroughly power stir the B-side component for 6 - 7 minutes. If the application requires Strongcoat PA500 to be pigmented, add 10% by volume of the required pigment into the B-Side component and mix for another 2 - 3 minutes.

If the application is to be carried out by roller, and additional pot life is required, it is recommended to add Strongcoat PA500 Solvent to the B-side component at a rate of 10% - 20% by volume. Solvent is to be added after the addition of the colour pack and mixed thoroughly until a homogenous mix is achieved.

Combine the A-Side and B-Side components and power stir again for 5 min before applying to the substrate.

The mixing ratio of comp. A to comp. B is 1:1 by volume. To ensure full physical characteristics are achieved within the finished coating use graduated beakers/ containers to ensure accurate 1: 1 by volume mixing of component A and component B.

APPLICATION

For the fastest and easiest application use low pressure plural component spray machine like LP-2 or LP-3.

Strongcoat PA500 can be applied using a standard airless spray machine or can be applied by roller, squeegee or notched trowel/rake.

When applying two or more coats allow each coat to dry completely before applying subsequent coats. If recoat window is exceeded, sand slightly to produce a profile, wipe with acetone and then apply the next coat.

Use a 8 – 13 mm Nap Mohair roller when rolling Strongcoat PA500. When applying Strongcoat PA500 with a squeegee or notched trowel the floor should be back rolled using spiked roller to assist in de-airing the coating.

The recommended system thickness should be 250 – 750 microns.

Note: Avoid application under direct sun light, it is always recommended that the application is done under shadow.

Strongcoat PA500

CLEANING

Prior to curing, tools may be cleaned with cleaning solvents. Once hard, by mechanical means only.

PACKAGING

Strongcoat PA500 is available in 20 x 20 litre buckets and 200 x 200 Litre drums.

COVERAGE

Approximately 0.25 ltr/m^2 to achieve a DFT of 250 µm per coat. However, coverage may vary depending on the substrate and surface porosity.

STORAGE

When stored in dry conditions out of direct sunlight in original unopened packaging, this product has a shelf life of approximately 12 months from the date of manufacture. Avoid storing product in temperatures above 35C as this may reduce the products shelf life.

Drums, including empty drums should always be kept tightly sealed. During storage and processing, avoid any contamination with other liquids and moist air which may cause solids to form leading to blockages in filters, pumps and/or pipelines.

CAUTIONS

HEALTH AND SAFETY

Strongcoat PA500 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

Strongcoat PA500

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- Surface treatments
- Grouts and anchors.
- Concrete repair.
- Flooring systems.
- Protective coatings.
- Sealants.
- Waterproofing.
- Adhesives.
- Tile adhesives and grouts.
- Building products.
- Structural strengthening.