

ArmourCoat® Polyurethane High Strength SF Slow Set

INTERIOR & EXTERIOR

SOLVENT FREE

2K

Description:

A thixotropic, adhesion promoted elasticized solvent free aromatic polyurethane coating.

Intended Uses:

Applied to suitably prepared metal, concrete & wood surface to provide a resilient, tough elastomeric coating. This thick layer coating will provide resistance against mechanical abrasion, impact, water and chemical protection in aggressive environments.

Used as an anti-drumming, anti-vibration coating on metal and sheet metal surfaces.

Use to line bakkie & truck beds to provide a tough anti-slip surface.

Use to waterproof horizontal surfaces against liquid ingress.

This coating is aromatic and if exposed to UV should be top coated with an aliphatic polyurethane such as PU 55 HB Topcoat.

Applied using V-Notch Trowels at thicknesses between 1.5 to 2.0 mm thick per layer.

Features & Benefits:

- Tough & flexible.
- Thermal & sound isolation characteristics.
- Excellent adhesion
- Outstanding physical properties in terms of flexural strength, tensile strength, impact and abrasion resistance
- High build, solvent free

Technical Data:

Mixing Ratio (By weight & Volume)	3:1 (A:B) – 75:25
Comp. A	ArmourCoat® Polyurethane High Strength SF Slow Set Comp. A
Comp. B	ArmourCoat® Polyurethane High Strength SF Slow Set Comp. B
Density Comp. A (Kg/ Lt)	1.27
Density Comp. B (Kg/ Lt)	1.23
Mixed Density (Kg/ Lt)	1.25
Volume Solids Comp. A %	100
Volume Solids Comp. B %	100
Volume Solids Mixed %	100
Pot Life after Mixing @ 25°C	20-25 minutes
Curing	24 Hours
Hardness Shore A	80-85
Application Temperature °C	10 – 40
Colour	Black
Consumption @ 1.5 mm	1.5 Lt / m ²
Thickness Required	1.0 to 4.0mm

Typical Exterior System on Concrete/metal:

Primer is applied in 1 to 2 layers to ensure no substrate porosity, 90 minutes drying @ 25°C

Layer	Product	Consumption
Primer	1K PU Primer	5.3 m ² / Lt @ 120 µm DFT
Body Coat	ArmourCoat® Polyurethane High Strength SF Slow Set	1.5 Lt / m ² @ 1.5mm DFT
Optional Topcoat	PU 55 HB Topcoat	6.87 m ² / Lt @ 80µm DFT

Application:

Component A & B are packed in separate containers in pre-measured weight proportions. Component B should be added to Component A while mixing with low revelation mixer of 300 – 600 RPM for 2 minutes. The sides and bottom of the mixture should be incorporated to ensure a homogeneous mix. Once mixed the material should be used within 20 – 25 minutes of mixing @ 25°C.

If dilution is required, a maximum of 10% PU Thinner may be added to improve workability. Alternatively heating the materials will improve workability but drastically reduce the working time.

If adding PU thinner, a maximum thickness of 1mm per layer is recommended to avoid any possible solvent entrapment.

Application using large nozzle underbody spray guns or pressurized hopper gun.
 Application is also suitable using plural component heated spray equipment.
 Contact a Specialized Coating System representative for more details.

After allowing to cure for 24 hours the application of finishing coat like PU 55 HB Topcoat.

If 48 hours is it exceeding it is recommended to abrade the surface prior to top coating, and in severe cases, to re-prime the surface using 1K PU Primer.

Surface Preparation:

Concrete Substrate pre-treatment always include the following necessary steps prior to application:

- New (concrete) substrates must be at least 4 – 6 weeks old.
- Mechanical strength should be: Compression Strength ≥ 22 MPa; Tensile Strength > 1.5 MPa. Resp. ASTM C39 & C1583.
- The moisture content (CM-method) of the concrete / cementitious subfloor must be < 3 – 4 %, < 0.2% Anhydrite, < 2 – 4 % Magnesite before a floor coating can be applied.
- remove cementitious residues & other by-products (Calcium Carbonate - Anhydrite) by (diamond) sanding, shot blasting etc.
- Old resin compounds that adhere well to the substrate need to be cleaned & sanded thoroughly. If there are doubts about their adhesion onto the substrate, adhesion tests should be carried out.
- Chemical residues, grease/oil etc. need to be removed (chemical cleaning, steam, detergents, flame-blasting).
- The substrate needs to be free from any loose /crumbly components. Gaps, cracks, holes etc. must be repaired prior to laying the first coat.
- All dust needs to be removed.
- If there are doubts about adhesion onto a substrate, an adhesion test must be carried out prior to the application.
- Porous and absorbent substrates require the use of a pore primer, to improve surface strength and to reduce capillary action of substrate pores. They also form a moisture barrier and improve Intercoat adhesion. Two-component epoxy-based primers & scratch coats etc. are commonly used for this purpose. Their suitability in terms of adhesion and overcoat-ability time however must be tested beforehand.
- Substrate temperature should be at least 3 degrees above the dew point and not below 10°C.

Metal Substrate pre-treatment always include the following necessary steps prior to application:

- The performance of this product will depend upon the degree of surface preparation. The surface to be coated must be cleaned and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.
- Accumulated dirt and soluble salts must be removed. Dry bristle brushing will normally be adequate for accumulated dirt. Soluble salts should be removed by freshwater rinsing. Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning and Mechanical Preparation –Steel:

- All surfaces to be coated must be dry, clean, and free from contamination. This product should be applied to surfaces prepared by abrasive blast cleaning to Sa 2½ in accordance with International Standard ISO 8501:2007 and SSPC-SP6. A blast profile of 40 – 70 microns is recommended or alternatively mechanically abrade the surface using grinding or flapper discs to achieve a similar profile.
- Primer surface using 1K PU Primer or suitable Epoxy anti-corrosive primer

Storage:

12 months in original un-opened containers in dry places at 25°C. no direct sunlight and temperatures above 30°C or below 5°C

Caution:

The application must take place in well ventilated places using protective gloves. Skin or eye contact must be avoided, otherwise wash carefully with soap & water. Refer to material safety data sheet for more information.

Packaging:

Comp. A	ArmourCoat® Polyurethane High Strength SF Slow Set Comp. A	3 Lt or 15 Lt
Comp. B	ArmourCoat® Polyurethane High Strength SF Slow Set Comp. B	1 Lt or 5 Lt