

SOLIDGUARD PUR

Two Component Aliphatic Polyurethane Coating

Solidguard PUR is a twin pack, acrylic modified, aliphatic polyurethane coating formulated to obtain a UV stable, non-chalking, high gloss finish with excellent gloss retention. The coating exhibits excellent resistance to weathering while displaying superior flexibility, high abrasion, acid, alkali and solvent resistance. Solidguard PUR bonds very well to a variety of substrates including concrete, metal, wood, tiles and natural stone. The product dries rapidly to a slick durable and desirable finish. Available in tinted or clear with the option of gloss or matt variants.

BENEFITS:



Easy to mix and apply.



Fast installation.



Unlimited re-coatability.



Non-chalking and non-yellowing.



Cures below temperatures of 0 °C.



High abrasion resistance.



Resistant to a wide range of chemicals including vegetable oils, paraffin's, aliphatic solvents, acids and alkalis (mild).

TECHNICAL DETAILS

Components	2
Mix Ratio	4 : 1 (vol / vol)
Colours	Standard & RAL colours
Clear coats	Gloss
Solids Content	70 ± 2 %
Coverage	10 m ² / L
Wet Film Thickness	100 - 120 um
Dry Film Thickness	50 - 60 um
Pot Life	4 hours (in can)
Tack Time	45 - 60 minutes
Surface Dry	2 - 3 hours
Overcoat	6 hours
Full Cure	2 days
Application	Roller or airless spray
Application Temperature	0 - 30 °C
Service Temperature	120 °C Max
Shelf Life	24 Months
PACKAGING	
Two component 5 L or 25 L kits	



*Product colours may differ from the ones shown above. For a full colour chart or for samples, contact your nearest Technical Finishes branch.

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APPLICATIONS:

- Metal topcoat for UV protection
- Interior or exterior surfaces
- Maintenance and demarcation
- Surface renewal and refinishing
- Concrete, structural steel, wood
- Outstanding colour and gloss retention
- Not tolerant to wet damp surfaces
- Chemical plants, food factories, plating facilities, laboratories, exterior tanks, marine application above water-line

PRECAUTIONS

- Ensure that the mixing ratio is adhered to.
- Discard any mixed material left over from the previous day.
- Use only **Solidkote 503 PU thinner**.
- Ensure good ventilation during application and drying. Avoid inhalation of mist or vapour.
- Keep equipment free of water at all times.
- Part B (Hardener) reacts readily with moisture. Do not expose to high humidity. Keep containers tightly sealed when not in use.

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Previous coats (epoxy / polyurethane) must be dry and free from contamination and sufficiently prepared if necessary. During application the substrate temperature may be as low as -5 °C provided it is dry and free from ice. Substrate temperature should be 3 °C above the dew point. Maximum relative humidity during application and curing is 85 %. Premature exposure to moisture may cause colour and gloss change.

SURFACE PREPARATION

Surfaces to be coated must be clean and free of dust, oily residues and loose friable material. Degrease with a suitable detergent cleaner. On steel surfaces abrasive blast clean to Grade Sa 2½ of the ISO 8501-1:1988 with a blast profile not exceeding 50 µm or prepare steel mechanically so that the surface has a pronounced metallic sheen (Grade St3). Mechanical cleaning is not as effective as abrasive blasting and results in a shorter maintenance-free life apply a primer coat

using **Solidguard 75 EPZ**, 24 hours prior to the application of Solidguard PUR to shot blasted steel for maximum adhesion properties.

MIXING

Mixing ratio by volume: base to hardener is 4:1. Temperature of the mixed base and hardener should be a minimum of 10 °C. Too much solvent addition will result in reduction in sag resistance. Thinner should only be added after the components are mixed. Mix using a paddle for approximately 3 minutes. Apply the first coat using an airless spray or short pile mohair roller or brush ensuring the coat is rolled out evenly and does not sag. A second coat may be applied after approximately 6 - 8 hours.

AIRLESS SPRAY

Thinner: **Solidkote 503 PU Thinner**
 Addition: **3 - 5 % depending on WFT**
 Nozzle Orifice: **± 0.44 - 0.49 mm, 0.017 - 0.019 in**
 Nozzle Pressure: **± 20 MPa, 200 bar, 2800 psi**

AIR SPRAY

Thinner: **Solidkote 503 PU Thinner**
 Addition: **3 - 5 % depending on WFT**
 Nozzle Orifice: **± 1.0 - 1.15 mm**
 Nozzle Pressure: **± 0.3 - 0.4 MPa, 3 - 4 bar, 43 - 57 psi**

BRUSH / ROLLER

Thinner: **Solidkote 503 PU Thinner**
 Addition: **0 - 5 %**

ADDITIONAL DATA

Spread rate m ² / L	10	9
DFT (um)	50	60

OVERCOATING TABLE

Substrate Temperature (°C)	-5	0	10	20	30	40
Min Intervals (Hours)	24	16	8	6	5	3
Max Interval	Unlimited					
Surface should be dry and free from contamination.						

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CURING TABLE

Substrate Temperature (°C)	Dry to handle (Hours)	Full Cure (Days)
-5	24	15
0	16	11
10	8	6
20	6	4
30	5	3
40	3	2

Adequate ventilation must be maintained during application and curing.

POT LIFE (AT APPLICATION VISCOSITY)

Temperature (°C)	Hours
10	7
20	5
30	3
40	2

HEALTH AND SAFETY:

Please read Safety Data Sheet and specific health and safety data for this product provided in compliance with the requirements of OHSA No.85 of 1993. The finished system is not hazardous to health or the environment.

WARRANTY

Technical Finishes products are manufactured under high quality standards and are warranted against defective materials and are sold subject to standard Terms and Conditions of Sale, copies of which can be obtained upon request. Technical Finishes deals with approved applicators and carry a back to back warranty with these clients. Technical Finishes cannot be held responsible for the workmanship in surface preparation and application of our products, it is understood that the approved contractor will guarantee such workmanship and application. It is vital that the application is done in accordance to our specification.

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