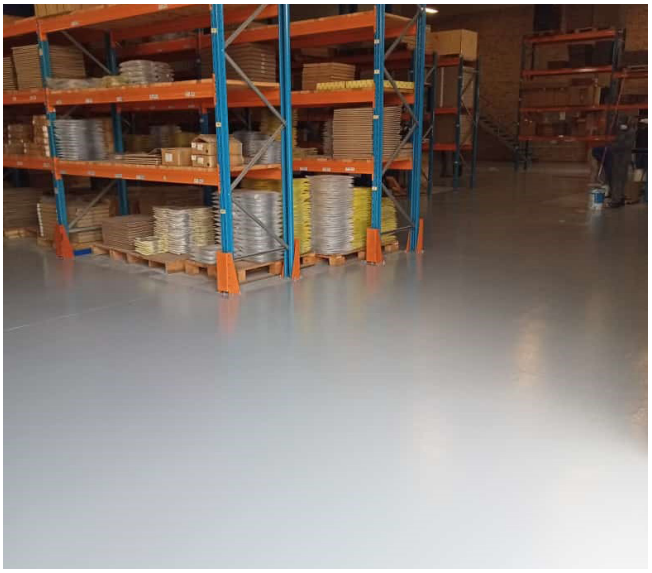
SOLIDGUARD PUR

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.

UNIQUE PRODUCT BENEFITS

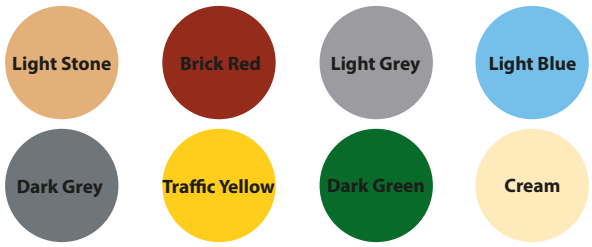
- Easy to mix and apply. Fast installation.
- Unlimited re-coatability.
- Non-chalking and non-yellowing.
- Resistance to a wide range of chemicals including vegetable oils, parrafins, aliphatic solvents, acids and alkalis (mild).

TECHNICAL DETAILS

Solids Content	70 ± 2%
Pot Life	4 hrs (in can)
Tack Time	45 to 60 min.
Surface Dry	2 to 3 hrs
Overcoat	6 hrs
Full Cure	2 days
Components	2
Mix Ratio	4:1 by volume
Colours	Standard colours & RAL colours
Clear Coats	Gloss
Coverage	8 m^2 / L
Wet Film Thickness	100 to 120 µm
Dry Film Thickness	70 to 80 µm
Application	Roller or airless spray
Application Temp.	0 to 30°C
Service Temp.	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. UV exposure yellowing is more prominent in light colours yet does not affect performance.

Leading manufactures of specialist epoxy and polyurethane flooring systems, specialised construction and corrosion protection products.

Distribution facilities nationwide

Western Cape +27 (0)21 535 4455 | **Eastern Cape** +27 (0)41 451 3944 | **Gauteng** +27 (0)11 822 7242 | **KwaZulu-Natal** +27 (0)31 705 7733

info@technicalfinishes.com • www.technicalfinishes.com

TECHNICAL FINISHES
SPECIALIST FLOORING AND CONSTRUCTION SOLUTIONS

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

SUBSTRATE REQUIREMENTS

Concrete substrates must have a minimum compressive strength of 20 to 25 MPa, a minimum tensile pull-off strength of 1.5 MPa and be free of oil, fat, grease, dust, and loose friable materials.

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.

Note: Any filling of blowholes / voids and surface levelling of substrate can be achieved using appropriate products within Technical Finishes Construction Range (please speak to one of our technical sales representatives).

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 > m 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.

PRIMING

Concrete Floors:

Ensure application conditions of 15 to 28°C and that the concrete moisture content is below 5%.

Prime with Solidkote UP Primer or Solidkote WB. Allow Solidkote WB primer or Solidkote UP Primer to cure for at least 8 hours prior to application of Solidguard PUR with a maximum over coating time of 18 hours (Solidkote UP Primer) or 48 hours (Solidkote WB Primer).

Wood:

The first coat of Solidguard PUR is to be applied with a quality mohair roller. Lightly sand (120-grit) and vacuum the coated surface before applying the subsequent coats.

Steel:

Prime with Solidguard 88, to shot blasted steel 24 hours prior to the application of Solidguard PUR, for optimal adhesion properties. Use only in well ventilated areas.

MIXING & APPLYING

Installation should not be attempted unless application team is fully trained. Temperature of the mixed base and hardener should be a minimum of 10°C.

Mix Part 1 thoroughly with a paddle or mechanical mixer.

Add the Part 2 into Part 1 and stir using a paddle or mechanical mixer for 2 minutes. Too much solvent addition will result in reduction in sag resistance. Thinner should only be added after the components are mixed.

Apply the first coat using an airless spray or short pile mohair roller ensuring the coat is rolled out evenly. Keep a wet edge and do not roll back onto the dry coating. A second coat may be applied after approximately 5 hours and within 24 hours.

Airless Spray

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

Leading manufactures of specialist epoxy and polyurethane flooring systems, specialised construction and corrosion protection products.

Distribution facilities nationwide

Western Cape +27 (0)21 535 4455 | **Eastern Cape** +27 (0)41 451 3944 | **Gauteng** +27 (0)11 822 7242 | **KwaZulu-Natal** +27 (0)31 705 7733

info@technicalfinishes.com • www.technicalfinishes.com

TECHNICAL FINISHES
SPECIALIST FLOORING AND CONSTRUCTION SOLUTIONS

Air Spray

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

Brush / Roller

Thinner:	Solidkote 503 PU Thinner
Addition:	0 to 5%

ADDITIONAL DATA

Spread Rate m^2 / L	10	9
DFT (µm)	50	60

SEALING

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.						

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

WATCH POINTS

Adhere to mix ratios as supplied and do not mix partial batches. Discard any mixed material left over from the previous day. Solidkote 503 PU thinners is the only thinners confirmed compatible. Ensure there is good ventilation during the application and drying. Since the system is moisture sensitive, keep equipment free of water and Part 2 containers tightly sealed when not in use.

NON-SLIP COATINGS

Non-slip finishes require the addition of 1 x 200g bag / 5L kit of Solidkote Non-slip beads. Add to Part 1 and ensure periodic agitation to resuspend the non-slip bead.

MAINTENANCE

Regular cleaning extends the service life of the Solidguard PUR coating. Maintenance is to be carried out using Liquid Action which complies with SANS 1344 Medium Duty Solvent Detergent (2112/P3325/10/ID). Damaged areas of the system should be patch repaired in order to ensure longevity of the working area.

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.