

SOLIDGUARD PUW

Two Component Aliphatic Water-Based Polyurethane

Solidguard PUW is a twin pack, water-based, polyurethane coating.

BENEFITS:



Quick turnaround time.



*Metal DTM or topcoat.
Surface renewal and refinishing.*



*UV protection and non-chalking.
Interior or exterior surfaces.
Outstanding colour retention.*



Tolerant to wet damp surfaces.



*Multiple application environments
such as chemical plants, food
factories, plating facilities,
laboratories, exterior tanks,
marine application above
water-line.*



*Environmentally friendly.
Low VOC.*



Unlimited re-coatability.



Cures to 5 °C.



*Highly durable.
Abrasion resistant.*



*Resistant to chemicals including
vegetable oils, paraffin's,
aliphatic solvents, acids and
alkalis (mild).*

TECHNICAL DETAILS

Components	2
Mix Ratio	9 : 1 (vol / vol)
Colours	Standard & RAL colours
Finish	Matt
Solids Content	55 ± 2 %
VOC	< 10 g / L
Coverage	10 m ² / L
Wet Film Thickness	100 - 120 um
Dry Film Thickness	50 - 60 um
Pot Life	2 hours
Tack Time	45 - 60 minutes
Surface Dry	4 hours
Overcoat	4 - 6 hours
Hard Dry	48 hours
Full Cure	4 days
Application	Roller, Brush or Airless Spray
Application Temperature	0 - 30 °C
Service Temperature	80 °C Max
Shelf Life	24 Months

PACKAGING

Solidguard PUW is supplied as 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.

Gauteng

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CHARACTERISTICS

- Topcoat system for structural steel surfaces, concrete, masonry as well as wooden substrates.
- Excellent resistance to weathering.
- High resistance to abrasion, acid, alkali and organic solvents.
- The product dries rapidly to a slick durable finish.

PRECAUTIONS

- Ensure that the mixing ratio is adhered to.
- Discard any mixed material left over from the previous day.
- 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.

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 um or prepare steel mechanically so that the surface has a pronounced metallic sheen (Grade St 3).
- Mechanical cleaning is not as effective as abrasive blasting and results in a shorter maintenance-free life. Apply a primer coat using **Solidguard 227**, 24 hours prior to the application of **Solidguard PUW** to shot blasted steel for maximum adhesion properties.

MIXING

- Mixing ratio by volume: base to hardener is 9:1
- Temperature of the mixed base and hardener should be a minimum of 10 °C.
- A small amount of clean fresh water may be added to adjust viscosity.
- Mix using a paddle for approximately 3 minutes.

APPLICATION

- 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 4 - 6 hours.

AIRLESS SPRAY

Thinner: **Clean water**
 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: **Clean water**
 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: **Clean water**
 Addition: **0 - 5 %**

ADDITIONAL DATA

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

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OVERCOATING TABLE

Substrate Temperature (°C)	5	10	20	30	40
Min Interval (Hours)	16	10	8	6	4
Max Interval	Unlimited				
Surface should be dry and free from contamination.					

CURING TABLE

Substrate Temperature (°C)	Dry to handle (Hours)	Full Cure (Days)
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	3
20	2
30	1
40	0.5

HEALTH AND SAFETY:

The system contains strong solvents - there must be no open flames or smoking in the vicinity. All appropriate PPE must be worn.

Please read Safety Data Sheet and specific health and safety data for this product provided in compliance with the requirements of OHS Act 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.