# TECHNICAL DATA SHEET



SOLIDKOTE ROBUST

26 July 2021; Rev 5

# **SOLIDKOTE ROBUST**

Industrial High Build Epoxy Floor Coating

Solidkote Robust is a two component, solventless, high build, epoxy flooring topcoat. Solidkote Robust is applied to floors to form the wearing surface for indoor applications. Excellent chemical resistance and durability to abrasion makes Solidkote Robust the choice of protection in a single coat application.



# **BENEFITS:**



High chemical resistance.



High abrasion resistance.



Seamless flooring system which is easy to maintain with a hygienic finish.



Fast installation. Non-dusting.



Solvent free, VOC compliant.



High build in one application.

TECHNICAL DETAILS		
Compressive Strength	> 55 MPa	BS6319
Tensile Strength	> 25 MPa	
Flexural Strength	> 35 MPa	
Concrete Adhesion	> 1.5 MPa (Concrete failure)	ASTM D7234
Impact Resistance	1 kg >1.8 m 2 kg >1.5 m	ISO6272- 1:2011
Hardness	80	Shore D
Slip Resistance	Dry >75 Wet >30	TRRL Pendulum Slip Test
Water Uptake (Permeability)	Nil	Karsten Test
Finish	Gloss	
Solids Content	100%	
Pot Life	30 min @ 20°C	
Touch Dry	10 - 12 hrs	
Light Traffic	24 hrs	
Heavy Traffic	24 to 48 hrs	
Full Cure	7 days	
Chemical Resistance	Refer to chemical chart	
Coverage @ 0.5 mm	10 m² per 5 L kit 40 m² per 20 L kit	
Coverage @ 0.8 mm	6.2 m² per 5 L kit 25 m² per 20 L kit	
Application Temperature	15 to 28°C	
Service Temp	60°C max (dry)	
PACKAGING		
Two component 5 L or 20 L		

















'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 causes yellowing, most prominent in light colours.

# Technical Finishes

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# APPLICATIONS:

- Factory and warehouse flooring.
- Pharmaceutical laboratories.
- Electronic clean rooms.
- Automotive.
- Aerospace hangars.
- Medium to heavy duty traffic environments.
- Concrete flooring protection.
- Workshop floors.
- Food and beverage plants.
- Commercial and domestic floors.

# SUBSTRATE REQUIREMENTS

Concrete substrates must have a minimum compressive strength of 20 to 25 MPa, a minimum tensile pull-off strength of 1.5 N / mm<sup>2</sup> and be free of oil, fat, grease, dust, and loose friable materials. The substrate should be dry to 75% RH (BS8204) and free from rising damp or ground water pressure. The surface finish of the concrete should be class 2 (AS 3610).

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**

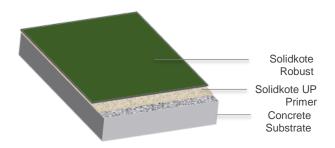
Remove all previous coatings, unbonded concrete and laitance mechanically through diamond grinding, abrasive blasting or scarifying to obtain a sound and porous surface (sandpaper texture). Sweep dust and loose debris followed by vacuuming, to obtain a dry and dust-free surface.

### **PRIMING**

Ensure application conditions of 15 to 28°C and that the concrete has a moisture content below 5% and is free from rising damp.

Prime with Solidkote UP Epoxy Primer.

Allow primer to cure for at least 8 hours prior to application of Solidkote Robust with a maximum overcoating time of 18 hours. The primer must show a visibly complete seal of the substrate. Should the primer be left for more than 18 hours before applying the top coat, then broadcast fine silica sand into wet primer.



Note: Solidkote STP Primer is recommended for difficult surfaces that are damp, have existing coatings, or persisting contamination.

# **INSTALLATION:**

Ensure application conditions of 15 to 28°C. Ensure adequate lighting to achieve an even and level spread. Installation should not be attempted unless application team is fully trained.

# Mixing

Mix Part A (resin) slowly with a mechanical mixer to resuspend any fillers.

Add the Part B into Part A and mix well using a mechanical mixer for 3 minutes. Ensure the mixing paddle scrapes the sides of the mixing vessel.

The mix should not be kept in the container as it will start to cure rapidly and become unusable.

#### **Placing**

Application is either:

roller applied if 500 µm (two coats), or

self-levelling if 800 µm or more.

Roller applied - Pour out the mix onto the demarcated area in a long ribbon and spread the mix using a steel trowel to obtain the correct coverage, then use a mohair roller to produce an even 250 µm film. Allow the first coat to cure for at least 10 hours prior to the application of the second 250 µm coat with a maximum overcoating time of 18 hours.

Self-levelling - Pour out the mix onto the demarcated area in a long ribbon and spread the mix using a notched rake to obtain the correct coverage and smooth off with the flat edge of the trowel (2 mm notched rake achieves a 800 µm film). A steel hand trowel may be used on the edges to assist with placing in smaller areas. After 10 minutes spike roll to assist with levelling and de-aeration. Ensure that the spike roller is rolled in a uniform direction.

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The total time of mixing and placing should be 10 to 15 minutes. Once the first mix has been placed, the following mixes should follow one after the other until the entire floor is completely coated in one operation. Doorways and separate rooms may be aped off and coated at another time. At this stage, do not spike rolled again as this can lead to slight colour variations.

### **SEALING**

For added surface protection from scratching, apply a single coat of Solidkote UV Satin, a twin pack water-based urethane with a satin / matt finish.

# **PRECAUTIONS**

Do not use any thinning solvent in this product. Allow to cure overnight before trafficking. Epoxies are not UV stable and will yellow due to exposure from UV radiation, use Solidkote Ultra Tough for outdoor substrates.

### **CLEANING**

Clean all equipment immediately after application using either Xylene or Solidkote 505 Epoxy Thinners.

### **MAINTENANCE**

Regular cleaning extends the service life of the Solidkote Robust system. Maintenance is to be carried out using Liquid Action which complies with SANS 1344 Medium Duty Solvent Detergent (2112/P3325/10/ID). Please refer to full cleaning regime for Polyscreed polyurethane flooring systems.

# **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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