

## SOLIDKOTE 227

### WATER-BASED HIGH BUILD EPOXY MASTIC

#### DESCRIPTION

Solidkote 227 is a self-priming, waterbased, high-build epoxy coating system designed to give excellent chemical and corrosion resistance to a wide variety of substrates in the minimum number of coats. The product is a high solids, high-build, potable water coating widely used for lining interior steel and concrete tanks, valves and piping. Formulated for application at conventional builds (400-600um per coat) as well as high builds up to 1000um. Its superior adhesion properties allow it to be applied over marginally prepared rusted steel surfaces. Its high solids formulation allows Solidkote 227 to be applied over most old existing coatings without lifting or wrinkling.

#### APPLICATIONS

- Excellent film build and edge protection
- VOC compliant
- Potable water safe
- FDA compliant for food contact
- Bridges, machinery, structural steel,
- Tank linings (Steel or concrete)
- Green concrete surface compatible
- Piping interior lining
- Mining structures
- Metal roofing
- Offshore equipment, marine environments

#### PRECAUTIONS

Do not apply below 10°C. White or light colours may illustrate slight yellowing from UV radiation. Epoxy systems lose gloss, discolour and eventually chalk with usual sunlight exposure. Avoid allowing product to stand in the sun before use as this will shorten the pot life considerably.

#### TECHNICAL DETAILS

Appearance	Liquid resin
Colour	Various
Solids content	75% ± 2%
Mix ratio	Mix as supplied
Pot life @ 25°C	20-25 minutes
Priming	Self-priming
Finish	Gloss
V.O.C	215 g/L
Tack free	4-6 hours
Topcoat	12 hours
Full Cure	7 days
Coverage	30m <sup>2</sup> per kit @ 125 um 20m <sup>2</sup> per kit @ 250 um
Application Conditions	16-32°C
	0-80% Relative Humidity

#### Chemical Resistance (Splash or spillage):

Acids	Fair to good
Alkali	Very good
Salts	Excellent
Solvents	Fair to good
Water	Excellent

#### PACKAGING

Solidkote 227 is supplied in pre-measured, twin pack kits consisting of a clear resin (A) and a pigmented hardener (B). The system may be supplied in either 5L or 25L kits.

#### DIRECTIONS

##### APPLICATION EQUIPMENT

Listed below are general application guidelines for the application of this product. It is recommended that job site conditions are taken into account in order to achieve desired results.

##### Spray Application (General)

This is a high solids coating and may require adjustments in spray techniques. Wet film thickness is easily and quickly achieved. The following spray equipment has been found

suitable and is available from manufacturers such as Binks, DeVilbiss and Graco.

**Conventional Spray**

Pressure pot equipped with dual regulators, 3/8" I.D. minimum material hose, .070" I.D. fluid tip and appropriate air cap.

**Airless Spray**

Pump ratio	30:1 (min.)
GPM Output	3.0 (min.)
Material Hose	3/8" I.D. (min.)
Tip Size	.017-.021"
Output Psi	2100-2300
Filter size	60 mesh

Teflon packings are recommended and available from the pump manufacturer. Use 45:1 pump ratio for elevated applications and 1/2" I.D. for hose lengths greater than 60'.

**Brush & Roller**

Not recommended for tank lining applications except when striping welds. Multiple coats may be required to obtain desired appearance, recommended dry fill thickness and adequate hiding. Avoid excessive re-brushing or re-rolling. For best results, tie-in within 10 minutes at 25°C. Use a medium bristle brush. Use a short-nap mohair roller with phenolic core.

**MIXING & THINNING**

Power mix Part B (Hardener) separately then combine with Part A (Resin) and power mix for a period of 3 minutes. Do not attempt to mix partial kits. Mix the product only as supplied as the mix ratio is not volume based. Ensure thorough mixing by transferring to another vessel and mixing again.

Thinning of the mixed product may be done with Solidkote 505 Epoxy thinners only. Thinning may be between 5-10%. For spray purposes thinning at a rate of 6% (300ml) per 5L Kit is suitable.

**TO CONCRETE OR MASONRY**

May be applied to green concrete. For proper bonding, apply over a clean, sound surface. Remove any existing oil, grease, wax, dirt, or foreign matter by washing with a suitable detergent. Remove any existing laitance on concrete surfaces.

**TO STRUCTURAL STEEL**

Solidkote 227 is surface tolerant. Surfaces must be clean, sound, and free from oil, grease, wax, and loose or foreign material. Minimum requirements shall be. Hand or power tool cleaning. Clean in order to remove any loose rust, mill scale, paint and other foreign matter. Dry abrasive blasting to a brush off blast is a more effective cleaning method and should be considered when feasible. For extreme or severe exposure, the surface maybe dry abrasive blasted to a commercial finish. Dry abrasive blast in order to remove at least two thirds of all visible rust, mill scale, paint, and other foreign matter. Chemical cleaning can also be used if necessary. Apply Solidkote 227 as soon as possible after cleaning and before flash rusting can occur. Recoat if necessary.

**TO GALVANIZED STEEL**

Surface must be clean, sound, and free from oil, wax, and loose matter. Degrease by solvent wiping. For old galvanized steel, hand or power tool cleaning is acceptable. Apply Solidkote 227 to substrate, topcoat if desired.

**TO EXISTING COATINGS**

Apply over clean, sound coatings. If the existing coating is brittle, eroded or underfilm rusting exists, or if less than 75% of the film is intact, the coating must be totally removed by brush blasting. For sound existing coatings that are 75% intact, remove any oil, grease, wax or foreign matter. Remove any remaining gloss or loose existing coating by hand or power tool. Apply Solidkote 227 to substrate, topcoat if desired.