

# STEELMASTIC 168

High Build Aluminium Modified Epoxy Mastic

Steelmastic 168 is a surface tolerant, self-priming, direct-to-rust, high build industrial maintenance epoxy coating.

## BENEFITS:



*U.S.D.A. acceptable for incidental contact in food processing and packaging plants.*



*Excellent water, chemical resistance, and excellent corrosion protection against a wide variety of substances.*



*Minimum number of coats required.  
High film build.*



*Proven field performance.*



*Minimum substrate preparation.*



*Minimal VOC content.*

## APPLICATIONS

- Excellent maintenance coating for bridges, pipes, fences, machinery, structural steel or tank exteriors, especially when corrosion of the steel has taken place.
- Ideal for offshore structures, marine, piping and exposed steel structures.
- May be applied over most old coatings, inorganic or organic zinc rich primers where optimal performance is desired.
- Not recommended for immersion in acids, alkalis and solvents.

## TECHNICAL DETAILS

Application	Roller or brush
Finish	Flat
Profile	Smooth
Solids	85% by volume
Temperature Resistance	82 °C - continuous 121 °C - non-continuous
Flash Point	27 °C
VOC	150 g / L
Application Temp	5 - 30 °C
Theoretical Spread	40 m <sup>2</sup> / kit
Recommended DFT	250 um (1 coat)
Recommended DFT	500 um (2 coats)
Surface Dry at 25 °C	8 - 10 hours
Over Coat	24 hours
(overcoating table)	30 - 90 days
Mix Ratio	1 : 2
Colour	Aluminium
Thinners	Solidkote 505 Epoxy Thinners
Shelf Life	36 months

## CHARACTERISTICS

- Superior adhesion properties allows for application to marginally prepared rusted steel and old existing coatings.
- Has an affinity towards covering and protecting edges and corners where most coatings have a tendency to pull away.
- High build formulation allows for application of up to 625 microns thick in a one-coat.

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## SUBSTRATE REQUIREMENTS

- Steel surfaces must be clean and free from oil, grease, moisture and loose matter.
- Clean by using a degreaser and rust cleaner with the use of a power tool cleaning been preferred in order to remove all loose rust or mill scale.
- For severe environments, dry abrasive blast in order to remove loose rust, mill scale, paint and other foreign matter from the surface.
- Remove all dust. Galvanised surfaces must be clean and free from all oil, grease, moisture and loose matter.
- For white rust or weathered (red-oxide rusting) galvanized steel, prepare by hand or power tool cleaning in order to remove any loose rust or scale.
- Do not apply over moist or damp surfaces.
- Apply Steelmastic 168 only over clean, sound coatings.
- If the existing coating is brittle, eroded, or under film rusting exists, or if less than 75% of the film is intact, the coating must be totally removed by brush-blasting or other specified method.
- For sound existing coatings that are greater than 75% intact, remove any oil, grease, dirt or foreign matter.
- Remove any remaining gloss or loose existing coating by hand or power tool cleaning.
- Spot prime bare areas with Steelmastic 168 and allow to dry.
- Apply Steelmastic 168 over the entire existing coating and spot-primed areas per label instructions.

## INSTRUCTIONS FOR USE

- Mix the Steelmastic 168 resin and hardener separately with a mechanical mixer before combining the two components and again power mixing for a period of 3 minutes.
- Avoid mixing at too high a speed to ensure no bubble formation.
- Thin down the mixed product with Steelmastic 168 diluent as supplied or alternatively for a high build film apply the mixed product alone. Up to 30% thinning is allowable.

## APPLICATION PROCEDURES

- Adequate ventilation must be maintained during application and curing.

### AIR SPRAY

- Thin the product as needed between 5 - 10 % depending on the required thickness and application conditions.
- Thinner: Solidkote 505 Epoxy Thinner
- Nozzle Orifice: 1.7 - 2.0 mm
- Nozzle Pressure: 0.2 - 0.3 MPa  
(± 2 – 3 bar, 29 – 44 psi)

### AIRLESS SPRAY

- Thin the product to between 0 - 3 % or as needed.
- Thinner: Solidkote 505 Epoxy Thinner
- Nozzle Orifice: 0.38 - 0.48 mm
- Nozzle Pressure: 12 - 16 MPa  
(120 - 160 bar, 1740 - 2321 psi)

### BRUSH / ROLLER

- Thin the product between 0 - 3 % as needed.
- Thinner: Solidkote 505 Epoxy Thinner.

## OVERCOATING TABLE

Surface should be dry and free of any contamination.  
Steelmastic 168 at 300 um.

Substrate Temperature	5°C	15°C	25°C	35°C
Min Interval (with itself)	36 hrs	30 hrs	24 hrs	20 hrs
Solidkote UVC	36 hrs	30 hrs	24 hrs	24 hrs
Solidguard 88	36 hrs	30 hrs	24 hrs	24 hrs
Max Interval	30 Days - Epoxies / Waterbased 90 Days - Polyurethanes			

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## HEALTH AND SAFETY:

The system contains styrene and 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 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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