

Product Data Sheet

Corro-Zinc 97

Product Description Corro-Zinc 97 is an epoxy-based zinc rich powder coating designed to be used as a primer coat on phosphated or blast-cleaned steel objects and structures. Corro-Zinc 97 imparts excellent resistance to corrosion, excellent mechanical properties and inter-coat adhesion, very good degassing properties, very good edge coverage and very good flow. Suitable top coat products are Corro-Coat MX for interior applications and Corro-Coat PE or Corro-Coat PE-F for exterior applications.

Application Areas Typical areas of application are steel building structures, agricultural machinery, steel fences, outdoor public area furniture, gas cylinders, and coatings for marine environments application.

Pre-treatment The overall quality of the coating system is largely dependent on the type and quality of the pre-treatment and the top coat. The recommended types of pre-treatment depend on the need for corrosion resistance:

Medium resistance (Corrosion Class C3*)	Iron phosphate or blast cleaning (SA 2.5 with a profile of 40-80 micron).
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High resistance (Corrosion Class C4*)	Zinc phosphate or blast cleaning (SA 2.5 with a profile of 40-80 micron), alternatively in combination with iron phosphate (C4 high*).
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Very high resistance (Corrosion Class C5 - M/I*)	Blast cleaning (SA 2.5 with a profile of 40-80 micron) in combination with zinc phosphate. (C5-M high, C5-I high*).
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* Reference to ISO 12944-2 (classification of environments)

Curing Schedules 10 minutes at 180°C object temperature
6 minutes at 200°C object temperature

It is recommended to partially cure Corro-Zinc 97 before the application of the top coat (3 - 5 minutes at 180°C or 2 - 3 minutes at 200°C object temperature, are indications for such partial cure). The system is then cured following the primer or topcoat specifications; whichever is most stringent. Tests have shown that a top coat applied to fully cured Corro-Zinc 97 can give excellent results.

The inter-coat adhesion properties and the complete system cure must always be verified. The application of a top coat must take place no later than 12 hours after the application of Corro-Zinc 97. The shortest possible interval is recommended.

Colour Selection and Finish Corro-Zinc 97 is available in a semi gloss medium grey shade, with a gloss level of 60 ± 10 (angle 60° measured according to EN ISO 2813).

Powder Application Corro-Zinc 97 is suitable for Corona or Tribo charging equipment.

Specific Gravity $3.1 \pm 0.1 \text{ kg/dm}^3$

Storage Conditions Keep in a dry cool area. Maximum temperature 25°C. Maximum relative humidity 60%.



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Technical Properties

The technical data provided below are typical for Corro-Zinc 97 applied to 0.8mm zinc-phosphated steel panels (60-80 micron film thickness):

Description	Norm	Corro-Zinc 97
Adhesion	EN ISO 2409 (2mm)	Cross-cut rating Gt0 (100% adhesion).
Impact resistance	ASTM D 2794 (5/8" ball)	> 60 inch-pounds without film cracking.
Cupping test	EN ISO 1520	Passes 5mm without film cracking.

Test Results

Test results for combinations of Corro-Zinc 97 with Corro-Coat PE/PE-F (smooth glossy) as top coat.

Note: test results are provided as a performance indication and do not constitute specifications.

Tested on 0.8mm zinc-phosphated steel panel and 3.0mm grit-blasted and zinc-phosphated steel panel, respectively. Total film thickness 160 microns (80 microns + 80 microns).		
Cross cut test	ISO 2409 (2mm)	Rating Gt0
Salt spray resistance	ISO 7253	After 1440 hours: Max. 1.0mm undercutting.
Water condensation resistance	ISO 6270	After 1440 hours: No blistering, rusting, cracking or flaking.

Tested on grit-blasted (Sa 2.5) SS 52 steel panel. Total film thickness 200 microns (100 microns + 100 microns).		
Salt spray resistance	ISO 7253	After 1440 hours: cross cut Gt0, 1mm undercutting, no blistering, rusting, cracking or flaking.
Water condensation resistance	ISO 6270	After 720 hours: cross cut Gt0, no blistering, rusting, cracking or flaking.
Humid atmosphere containing sulphur dioxide	ISO 3231	After 30 cycles: cross cut Gt0, less than 0.5mm undercutting, no blistering, rusting, cracking or flaking.

Tested on 0.8mm iron-phosphated steel panel. Total film thickness 155 microns (75 microns + 80microns).		
Cyclic corrosion test	ISO 11997-1	After 2000 hours: 2.4mm undercutting.

Third party tests performed by the Institute für Korrosionsschutz Dresden GmbH, concluded that a system of Corro-Zinc 97 and Corro-Coat PE-F 2197 "qualified as 'high' for corrosivity categories C5-I, C5-M and C4 according to DIN EN ISO 12944 part 6 (Laboratory performance test methods)."

Note: The information on this Product Data Sheet is given to the best of the manufacturer's knowledge, based on laboratory testing and practical experience. However, as the product is often used under conditions beyond the manufacturer's control, only the quality of the product itself can be guaranteed. Jotun Powder Coatings reserves the right without notice to alter or change the content of this Product Data Sheet.

Jotun Powder Coatings. May 2005.

THIS PRODUCT DATA SHEET SUPERSEDES ALL PREVIOUSLY ISSUED VERSIONS.