



Technical Specification

Zincodic 315-ENC



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Zincodic 315-ENC

Is a high build solvent-free epoxy novolac coating designed to provide outstanding abrasion & chemical protection of steel and concrete structures at elevated temperatures. The coating contains hardened ceramic particles making it ideal for highly abrasive environments with strong industrial chemicals and acids.

Typical applications

Tank lining, process vessels, chemical drains and channels
Internal pipe surfaces, sumps pumps & valves.

Characteristics Appearance

Base: Highly structured thixotropic liquid

Activator: Amber liquid Mixed: Thixotropic liquid

Mixing Ratio

By weight: 5:1 By volume: 3.5:1
Density Base: 1.55 Activator: 1.05
Mixed: 1.43

Solids content

100%

Sag Resistance

Nil at 650 microns.

Coverage

Zincodic 315 ENC should be applied in 2 coats at 500 microns wet film thickness per coat.

At 500 microns Zincodic 315 ENC will have a theoretical coverage rate of 2m² per litre per coat.

Cure Times

The applied material should be allowed to harden for the times indicated below before being subjected to the conditions indicated:

Usable life

10°C 90 minutes
20°C 45 minutes
30°C 22 minutes
40°C 11 minutes

Minimum overcoating time

10°C 16 hours
20°C 8 hours
30°C 4 hours
40°C 2 hour

Maximum overcoating time

10°C 48 hours
20°C 24 hours 30°C
12 hours 40°C 6 hours

Water/ sea water immersion

10°C 8 days
20°C 4 days
30°C 2 days
40°C 1 day

Chemical immersion

10°C 14 days
20°C 7 days
30°C 3.5 days
40°C 1.75 days

Mechanical Properties

Abrasion Resistance

Taber CS17 Wheels/1 Kg load 64mg loss/1000 cycles 0.08cc loss/1000 cycles

Tensile Shear Adhesion

Tensile Shear to ASTM D1002 on abrasive blasted mild steel with 75 micron profile 196kg/cm² (2790psi)

Compressive strength

Tested to ASTM D 695 790kg/cm² (11235psi)

Corrosion Resistance

Tested to ASTM B117 Minimum 5000 hours

Flexural Strength

Tested to ASTM D790 820kg/cm²

Heat Distortion

Tested to ASTM D648 at 264psi fibre stress.

20°C Cure 60°C

100°C Cure 98°C

150°C Cure 112°C

Hardness

Shore D to ASTM D2240

20°C 86

100°C 85

150°C 72

Heat Resistance

Suitable for use in immersed conditions at temperatures up to 90°C. Resistant to dry heat up to 200°C dependent on load.

Chemical Resistance

The product resists attack by a wide variety of inorganic acids, alkalies, salts and organic media including:

Typical Chemicals & Maximum Immersion Temperatures

- Acetic Acid 10% 50°C
- Ammonia Hydroxide 30% 80°C
- Benzene 100% 60°C
- Butanol 100% 50°C
- Chromic Acid 10% 75°C
- Ethanol 100% 60°C
- Hydrocarbons with steam 90°C
- Hydrobromic Acid 40% 50°C
- Hydrochloric Acid 36% 75°C
- Nitric Acid 10% 50°C
- Phosphoric Acid 75% 90°C
- Steam out 200°C
- Sulphuric Acid 98% 75°C
- Toluene 100% 60°C
- Xylene 100% 60°C

Product Storage life

5 years if unopened and stored in normal dry conditions (15- 30°C)

Quality

All Zincodic Products are supplied under the scope of the company's fully documented quality system.

Warranty

Zincodic warrants that the performance of the product supplied will conform to the typical descriptions quoted within this specification provided material is stored correctly and used according to the procedures detailed in the Technical Data Sheet for the material.

Health and safety

Please ensure good practice is observed at all times during the mixing and application of this product. Protective gloves and other recommended personal protective equipment must be worn during the mixing and application of this product. Before mixing and applying the material please ensure you have read and fully understood the detailed Material Safety Data Sheet

Legal Notice:

The data contained within this Product Specification is furnished for information only and is believed to be reliable at the time of issue. We cannot assume responsibility for results obtained by others over whose methods we have no control. It is the responsibility of the customer to determine the products suitability for use. Zincodic (PTY) Ltd accepts no liability arising out of the use of this information or the product described herein.