# Technical Data Sheet
## Zincodic Extreme 80 2K
### Africa Asia Pacific

Zincodic (Pty) Ltd, 79A Bellairs Drive, Glenvista, South africa1501
Web: www.zincodic.co.za
Email: charles@zincodic.co.za Tel: +27 83 228 7665

# Zincodic Extreme 80 2K

## Product description

**Zincodic Extreme 80 2K** is a two-part polyurethane coating with 85% (+/- 2%) zinc in the dry film layer (DFT). Zincodic Extreme 80 is specially formulated to be a non-isocyanate, no VOC, no HAP, no BPA/F, and non-flammable single application standalone coating. Zincodic Extreme 80 is a non-toxic, user friendly cathodic protective coating, with the same life expectancy as HDG. Zincodic Extreme 80 is designed to be used in outdoor and indoor applications requiring low toxicity and high durability.

## Typical applications

Mining equipment, marine and offshore environments, structural steel, towers, refineries, power plants, pipelines, pumps, generators, bridges, buildings, storage tanks, chemical plants, refurbishing of HDG substrates, refurbishing of corrugated iron/galvanised roofing, and general structural engineering. Highly suitable for coastal high humidity conditions or application requiring corrosivity categories up to and including IM3 (ISO 12944-2)

## Product specifications

- Solids by Volume — 85% (+/- 1%)
- SG — 2.92 (+/- 0.1)
- Zinc Content (DFT) — 85% (+/- 2%)
- D-Shore hardness — 92
- Zinc purity — 98%
- Maximum temperature — 250°C (482 °F)
- Electrolytic link — up to - 930 mV (ASTM G215-17)
- PH tolerance — 4 to 13
- Adhesion — up to 24 MPa (ASTM D4541)
- VOC — Nil
- Flash Point — 62.2 °C (143.96 °F)
- Colour — RAL 7005
- Theoretical coverage per pail — 41 m² @ 100µm DFT

## Surface preparation

Ensure all surfaces are assessed and treated in accordance with SSPC-SP1 solvent cleaning standards.

Surface to be free of oil, grease, dust, dirt, and any other foreign matter or contaminates.
Commercial blast according to SSPC-SP10/Sa2.5 to a minimum blast profile of 75µm
Non-visible salt tolerance to be less than 7µg/cm² (recommended 5 µg/cm²)
All sharp edges to be rounded.
Welds, edges, and holes to be stripe coated.

May be applied on non-friable rust substrates (contact the technical dept.)
May be applied on new or old galvanised steel substrates. (contact the technical dept.)

Optimum coating performance will only be achieved with the correct surface preparation. If in doubt, contact the technical division for a protocol of application.

## Application

### Application methodology

- Brush,
- Short hair or sponge roller.
- Gravity fed spray gun, nozzle size 1.8 - 3.5 mm.
- Pressure pot – Self agitating recommended, nozzle size 1.8 - 3.5 mm
- Airless – Nozzle size 0.15 to 0.25 thou - minimum pump ratio 40:1
- Electrostatic gun

### Compressed Air

- Use compressor with adequate pressure and volume.
- Air to be free of oil and moisture.
- Water and oil separators/traps to be installed on all airlines at the appropriate distances. (Recommended 15 metres from the compressor)
- Follow ASTM D 4285 standards. (Blotter test)

### Mixing

.

Ratio by volume

| | |
|---|---|
| Part A | 10.5 |
| Part B | 1 |

Measure the volume of part A in a beaker or measuring jug. Divide this value by 10.5 to achieve the **volume** of hardener required.

Ratio by weight

| | |
|---|---|
| Part A | 31 |
| Part B | 1 |

Measure the weight of part A on a scale. Divide this value by 31 to achieve the **weight** of hardener required.

### Mixing methodology

Remove seal and locking ring. Open pail by using a 50mm scraper tapping around the circumference of the lid until it pops off. Add the contents of Part B to Part A. Mix using a standard 50 to 75mm paint mixer. Mix for 3 to 5 minutes until a

homogeneous coating is obtained. The coating becomes exothermic when parts A and B are mixed.
**Note:** Shake part B vigorously for 30 seconds before adding to part A.

**Pot Life**

2 hours at 20°C (68 °F)
May be used until coating becomes too viscous to spray or apply. **Do not add** solvent to extend the pot life.

**Solvent**

**ZincSolve-B -** Note: **If required** add 50 to 100 ml solvent to the pail too adjust the viscosity for spray application. Test before use.
**Note:** Shake the solvent can vigorously for 30seconds before use or before adding to the coating.

**Environmental conditions**

| | |
|---|---|
| Application temperature | - 5°C to 40°C (23 °F to 104 °F) |
| Application humidity | < 85°C (185 °F) |
| Substrate temperature | > 3°C (37.4 °F) above dew point. |

**Curing time**

| | |
|---|---|
| Touch dry | 3 hours at 21°C (69.8 °F) |
| Transport ready | 24 hours at 21°C (69.8 °F) |
| Full cure | 12 days at 21°C (69.8 °F) |

Drying and curing time will depend on temperature, relative humidity, and coating thickness.

**Over coating time**

3 hours or until touch dry.
**Touch dry** – the state of drying when slight finger pressure does not leave any imprint or reveal any tackiness.

**Duplex coating time**

| | |
|---|---|
| Minimum overcoating time | Touch dry |
| Maximum overcoating time | 24 hours. |

**Note:** For duplex coating, do not use any Alkyd based coatings. Always test product compatibility before duplex coating.

**Coating thickness**

May be applied up to 150µm WFT (Wet Film Thickness) per single coat.
Apply 2nd or 3rd coating to achieve final required DFT.
May be applied up to a DFT of 375µm.
DFT application should be in accordance with ASTM-A123 standards for material thickness, and according to ISO 12944-2 standard for environmental conditions.

## Packaging

| | |
|---|---|
| Coating - Zincodic Extreme 80 Part A. | 12.8 kg container. |
| Hardener - Zincodic Extreme 80 Part B. | 400 g container. |
| Solvent - ZincSolv-B. | 1 Litre container. |

## Storage

Keep sealed containers in a well-ventilated cool dry area as per local authority, regional and international regulations.
Keep away from direct sunlight, heat, and acids.
Avoid excessive vibration.

| | |
|---|---|
| Storage temp: | 5°C to 30°C (41 °F to 86 °F) |
| Shelf-life: | 12 months from date of manufacture, if unopened and stored correctly. |

## Disposal

Dispose of contents and or containers to an approved waste disposal plant in accordance with local, regional, national, and international regulations.

## Notice

For further information read the brochure in conjunction with the Technical Data Sheet and the Safety Data Sheet.

## Health and Safety

Please ensure good practice is always observed. Protective gloves, goggles & a disposable coverall must be worn during the mixing and application of this product. Before mixing and applying the material ensure you have read and understood the detailed Safety Data Sheet.

## Legal Notice:

The data contained within this Technical Data Sheet 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 if the product is suitable for use. Zincodic (Pty) Ltd accepts no liability arising out of the use of this information or the product described herein.