



Zincodic 80®

Technical Data Sheet

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Manufactured in Belgium
Contact details - Charles Joubert
charles@zincodic.co.za
+27 83 228 7665

General Description

Is a single component organic rich zinc coating which has 88% zinc in the dry film layer that offers cathodic protection similar to Hot Dip Galvanizing.

Main Characteristics

- Zinc quantity - 88% in the dry film layer (+/-2%)
- Zinc purity - 99.995% purity (+/-)
- Specific gravity - 2,5 kg/dm³ (+/- 0,1)
- Colour - Light grey matte finish RAL #7005
- Security - Non toxic and non flammable when dry
- VOC - 274 grams/litre (+/- 10g)
- Solvent - Dry Solvent
- Ready to use - One component zinc rich coating
- Cathodic protection - Up to 1060 millivolt potential
- Acidic & alkaline environment - supports a pH range of 5.5 to 12.5
- Resistance to cold and heat - from - 40°C to + 220°C
- UV - high resistance to UV, little or no impact
- High flexibility - allows for expansion, bending and dilation of material
- Volume solids - 74% (+/-1%)
- Flash Point 52°C
- Solvent - Zincsolv
- Touch dry - +/- 4 hours (depending on DFT and environmental condition)
- To handle - +/- 12 hours (depending on DFT and environmental condition)
- Full cure - 21 days (depending on DFT and environmental conditions)

General

- Dry film coating thickness to be in accordance with ASTM-A123 standards
- Salt spray 5% solution in accordance with ASTM B117 (2000Hrs)
- Bending and flexibility in accordance with ASTM D-522
- Impact in accordance with ASTM D2794
- Abrasion in accordance with ASTM D4060-14
- Weldable on up to a 40µm coat without effecting the welded joint (X-ray)
- Life expectancy same as hot dip galvanising with the same DFT
- Can be duplex coated with compatible paints. (No Alkyds)
- Life expectancy of duplex coat, similar to hot dip galvanizing with duplex system
- Restores cathodic protection to end of life hot dip galvanizing or Zincodic coatings
- Excellent for repairs to hot dip galvanizing that has been damaged
- Can be applied over steel, aluminium, copper, cast iron, stainless steel, concrete

Surface Preparation

- All surface to be clean and free of oil, grease, dirt and other soluble contaminants
- Recommended to follow SPPC-SP1 solvent cleaning standard before blasting.
- All sharp angles and edges to be rounded and all holes to be chamfered
- Depending on environment and specification requirements salt tolerance to be less than 7µg/cm²
- Surface cleanliness to be in accordance with Nace 2 or SSPC-SP10
- Recommended to follow ASTM D4285 blotter test for compressor cleanliness before commencing blasting.
- Blast profile to be in the range of 40µm to 70µm
- Coating to take place within 4 hours of blasting and final inspection, unless Zincodic BC is used as a flash rust inhibitor

Environmental Conditions

- Application temperature to be between -10°C and +40°C
- Substrate to be at least 3°C above the dew point
- Maximum ambient humidity for application 80% RH
- Minimum ambient humidity for curing 25% RH

Mixing Procedure

- Open the pail using a 50mm to 75mm hard scraper - Never use a screw driver
- Open the container with caution and allow any gasses to escape.
- Mix the coating with a standard 50mm to 70mm paint mixer using a low speed drill or mixer
- Mix to a homogenous consistency by moving the mixer up and down in the pail (5 minutes)
- DO NOT mix the pail by shaking.
- Add up to 5% Zincsolv by volume depending on the application method (test before hand)

Application Methods

Brush/Roller

- Ready to use after mixing
- Generally dilution is not required
- Use a short pile or sponge roller

Air Spraying

- Dilute by up to 5% with Zincsolv (test before use)
- Gravity guns and spray pot nozzle sizes to be 1.8mm to 2.2mm
- Suction type guns are NOT recommended
- Air pressure from 3 to 4 bar depending on equipment used. (test in advance)
- Use of water traps within the compressed air system is essential to remove moisture

Airless Spraying

Dilute by up to 5 % Zincsolv (test before use)
Dilution with a pump ratio of not less than 40:1 is recommended
Recommended nozzle sizes 0.38mm to 0.51mm
Recommended application pressure 100 to 150 bar

Electrostatic Spraying

Can be applied using electro-static gun. Contact technical support

Application

- Stripe coat all edges, holes, bolts and nuts, welds and any hard to reach areas
- May be applied in several layers
- Avoid single coating of over 100µm - best to apply 2 or 3 coatings to achieve final DFT
- If applied by brush or roller the coating thickness will be approximately 20µm to 50µm per coat, depending on addition of solvent
- Use of a Wet Film Gauge is highly recommended to guide applicators
- Application thickness to be in accordance with ASTM-A123 and ISO-12944-2 standards for corrosivity of atmospheres.

Application Substrates

- New steel
 - Weathered steel
 - Cast Iron
 - Hot Dip Galvanizing new or weathered
 - Stainless steel 304 & 316
 - Copper
 - Aluminium
 - Concrete
 - Partially rusted iron (surface must be non-friable)
- Contact the local technical support team for appropriate procedures.

Repairs - Touch Ups

- Remove all residue, oil, grease and contaminates. Recommended to follow SSPC-SP1 standards
- Use a brush/roller or spray equipment and apply a coating thickness to the same DFT as the original coating

Duplex Coating

- Can be duplex coated with most polyurethane or epoxy coatings. (Always pre-test before use)
- Do not use Alkyd based coatings.
- Duplex coating to be applied after 24hours but before 50 hours.
- If 50 hours have surpassed then coat with a mist coat +/- 40 µm leave to dry before duplex coating

Drying and Curing Time at 20°C

- Touch dry +/- 4 hours depending on DFT and environmental condition.
- To handle +/- 12 hours depending on DFT and environmental condition
- Wet on wet application when air or airless spraying
- Second or subsequent coats, allow sufficient time for solvent flash off (depending on environmental condition and DFT)
- Dust free after 30 minutes (depending on environmental condition and DFT)
- Full cure 21 days (depending on environmental condition and DFT)

Health and Safety

Always refer to the Zincodic 80 (SDS) Safety Data Sheet and the local safety regulations before use.

Disclaimer

Information given is in good faith at the time of publication and is for information purposes only; information herein does not engage the responsibility of the manufacturer who has no means of control during application of the products.

The data sheet may change without notice.



DFT Application Guide

Dry Film to Reach		Coverage / 12 kg		<i>Evaluation of the loss to be calculated by the estimator</i>
Dry μ	Dry mils	Metres ²	Feet ²	
25 μ	1.0 mil	83.6	900	* These calculations are based on smooth and flat surfaces. * Blasting profile or surface roughness is not evaluated. * The actual protection begins after reaching the peaks of the material background roughness.
50 μ	2.0 mil	41.8	450	
75 μ	3.0 mil	27.9	300	
100 μ * 2 coats	4.0 mil * 2 coats	21.0	225	<i>For estimators and applicators see the calculation</i> <u>Example</u> A) 100m ² (1076.39 ft ²) B) The protocol requires a 125 μ (5.0 mil) coating C) Evaluate the job to be coated. eg. fence, steel wall, piping, beams, angle iron etc. Estimate a percentage wastage (loss) according to your evaluation.
125 μ * 2 coats	5.0 mil * 2 coats	16.7	180	<i>Calculations</i> <u>Step 1:</u> Area \div Square metre dry film coverage per pail (see the table on the left) 100 m ² \div 16.7 m ² (16.7m ² coverage / pail @ 125 μ DFT 100 \div 16.7 = 5.98 pails (roundup to 6 pails)
150 μ * 2-3 coats	6.0 mil * 2-3 coats	14.0	150	
175 μ * 2 coats	7.0 mil * 2-3 coats	12.0	128	<u>Step 2:</u> If loss is estimated at 10% 6 pails + 10% = 6.6 pails. Roundup to 7 pails * Coat can be applied wet on wet if coated by spraying
200 μ * 2-3 coats	7.0 mil * 2-3 coats	10.5	112	
225 μ * 2-3 coats	9.0 mil * 2-3 coats	9.3	100	0.001 = 1.0 mil of an inch = 25 μ (microns)
250 μ * 3-4 coats	10.0 mil * 3-4 coats	8.4	90	
275 μ * 3-4 coats	11.0 mil * 3-4 coats	7.6	82	In case of doubt, don't hesitate to contact our technical support division.
300 μ * 4-5 coats	12.0 mil * 4-5 coats	7.0	75	
325 μ * 4-5 coats	13.0 mil * 4-5 coats	6.4	69	
350 μ * 4-5 coats	14.0 mil * 4-5 coats	6.0	64	
375 μ * 4-5 coats	15.0 mil * 4-5 coats	5.5	60	