# CONTIZINC 2702 (IZ-01HS)
# INORGANIC ZINC RICH PRIMER

## TYPE

A two-packs, solvent based inorganic zinc rich rust preventive coating is based on ethyl silicate and high purity zinc dust.

## USES

Use for steel structures of power plants, harbor facilities, bridges, water pipelines and storage tanks to extend the protection of life.

## CHARACTERISTICS

- High zinc loading.
- Excellent resistance to oil, mechanical damage and organic solvents.
- High slip co-efficient, can be used on faying surface.
- High performance anti-corrosion coating.
- Available in ASTM D520, Type II (low lead) zinc dust version as standard.
- Containing 86% zinc by weight in the dry film. Conforms to SSPC Paint 20 Level 1.

## PRACTICAL INFORMATION

| | |
|---|---|
| **Color** | Gray |
| **Gloss Level** | Flat |
| **VOC Values** | 3.67 lbs/gal (440 g/l) |
| **Volume Solids** | Above 65% |
| **Theoretical Coverage** | 3 mils：354 $ft^2$/gal (8.7 $m^2$/l)<br>4 mils：265 $ft^2$/gal (6.5 $m^2$/l) |
| **Typical Thickness** | DFT：2~3 mils　WFT：3~4.6 mils |
| **Service Temperature** | Untopcoated: Continuous 750℉ (400℃); Non-Continuous 800 ℉ (427℃).<br>With recommended Inorganic copolymer topcoat (CONTITHERM 2569 Min.DFT 2mils) Continuous 1000℉ (538℃); Non-Continuous 1200℉ (649℃) |
| **Preceding Coats** | Chlorinated Rubber, Epoxy, Vinyl, Silicone or PU system<br>A mist coat is required to minimize topcoat bubbling except for some topcoats (high-solids epoxy) |
| **Repair** | CONTIZINC 1727 |

## SUBSTRATES & SURFACE PREPARATION

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| **General** | Remove dirt, dust, oil and all other contaminants that could interfere with adhesion of the coating. Surfaces must be clean and dry. Moisture, grease, sludge, dust corrosive salt must be thoroughly cleaned from substrate. |

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## SUBSTRATES & SURFACE PREPARATION

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|---|---|
| **Steel** | Surface preparation standards can be used SSPC-SP10、Sa2 1/2 (ISO 8501-1:2007) or hand rusting to SIS St3. Roughness for structure of carbon steel requires for 45~60 microns. |
| **Stainless & Galvanized** | Not recommended application. |
| **Areas of Breakdown and Damage** | Should be prepared to the specified standard (Sa2 1/2 (ISO 8501-1:2007) or SSPC-SP6, Abrasive Blasting or SSPC-SP11, Power Tool Cleaning) and patch primed prior to the application of CONTIZINC 1727(EP-03AA). |

## PERFORMANCE DATA

| Test Method | System | Results |
|---|---|---|
| CNS 11584 K6854<br>Test for Inorganic Zinc Rich Primer | 1 ct. IZ-01 | Solids content : 80.65%<br>Zinc content in dry film : 86.7% |
| ISO 4628-6-07<br>ASTM D610-08<br>Cyclic Corrosive Test | Blasted Steel<br>1 ct. IZ-01 (75 microns)<br>1 ct. 1569 (50 microns) | Chalking rating : 0.5<br>Rust grade : 10 |
| ISO 4628-6-07<br>ISO 4624-02<br>Cyclic Corrosive Test | Blasted Steel<br>1 ct. IZ-01 (75 microns)<br>1 ct. EP-999GF (150 microns)<br>1 ct. UP-450 (60 microns) | Chalking rating : 0.5<br>Original adhesive strength : 5.2 MPa<br>Percentage of adhesive strength retention after cyclic corrosive test : 62.9%(3.27 MPa) |
| ASTM D5894-96<br>ASTM D4541-09<br>Type V Cyclic Corrosive Test | Blasted Steel<br>1 ct. IZ-01 (75 microns)<br>1 ct. EP-999GF (150 microns)<br>1 ct. UP-450 (60 microns) | No cracking and peeling in appearance<br>Original adhesive strength : 8.0 MPa<br>Percentage of adhesive strength retention after cyclic corrosive test : 69.6%(5.57 MPa) |
| CNS 11478 K6820 (1995)<br>Test For Heat Resistance Paint ( 600℃, 48 hours ) | Blasted Steel<br>1 ct. IZ-01 (75 microns)<br>1 ct. 1569 (50 microns) | No blistering, cracking and peeling in appearance |
| ASTM B117<br>Salt Spray | Blasted Steel<br>1 ct. IZ-01 (75 microns) | No blistering, cracking and rusting after 5000 hrs |

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## PERFORMANCE DATA

| Test Method | System | Results |
|---|---|---|
| ASTM A325<br>Slip Co-efficient | Blasted Steel<br>1 ct. IZ-01 (125 microns) | 0.47 |
| ASTM F963<br>Soluble Heavy Metals Test | 1 ct. IZ-01 | n.d. (Sb、As、Cd、Cr、Pb、Hg、Ba、Se) |

Test reports and additional data available upon written request.

## CERTIFICATION

- CNS 4397 K2088 : Report number 90A0047 ( National Kaohsiung University of Applied Sciences )
- Norsok M-501-04 : Report number KV-13-04545XA-1, KV-12-08801XA-1 ( SGS Taiwan Ltd. )
- CNS 2949 K2050 : Report number KV-14-10793ZA ( SGS Taiwan Ltd. )

## MIXING & THINNING

**Mixing** Mix base and zinc dust according to the mixing ratio and stir thoroughly.

**Thinning** Use CONTITHINNER 13(SP-13) to thin up 5-10%

**Mixing Ratio** Base : Zinc dust = 68 : 32 ( by volume )

**Pot Life** 4 hours at 77 ℉ (mixture, 25℃)

## APPLICATION EQUIPMENT GUIDELINES

**Spray Application** When the relative humidity is lower than 40%, water should be sprayed on after being painted for 30 minutes to promote hardening. The dry film thickness should not exceed 150 um to avoid cracking. CONTIZINC 2702 does not suitable for repairing or recoating.
Please use product CONTIZINC 1727(EP-03AA) for repairing to avoid layer film cracking.
When overcoating, the air in the pores will escape through the next coating and may cause blister. A mist coat then full coat can reduce this condition: spray a thin coat to fill the pores in the CONTIZINC 2702(IZ-01HS) film, soon after apply to full specified film thickness to break the blisters.
Caution : In difficult cases it may be necessary to thin the next coat.

**Airless Spray** Pump ratio : 30:1 or greater
Tip size : 0.015”~0.021”
Output PSI : 2500~3800 PSI

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## APPLICATION EQUIPMENT GUIDELINES

**Brush** For touch-up of areas less than one square foot only. Use medium bristle brush and avoid re-brushing.

**Roller** Not recommended

## APPLICATION CONDITIONS

| Condition | Coating | Surface | Environment | Humidity |
|---|---|---|---|---|
| Minimum | 50℉ (10℃) | 50℉ (10℃) | 50℉ (10℃) | 40% |
| Maximum | 113℉ (45℃) | 122℉ (50℃) | 113℉ (45℃) | — |

## CURING SCHEDULE

| Surface Temp. (50% Relative Humidity) | Touch Dry | Hard Dry | Dry to Handle |
|---|---|---|---|
| 59℉ (15℃) | 45 minutes | 1 day | 7 days |
| 77℉ (25℃) | 45 minutes | 18 hours | 5 days |
| 122℉ (50℃) | 15 minutes | 8 hours | 3 days |

## OVERCOATING INTERVAL

| Surface Temp. (50% Relative Humidity) | Minimum | Maximum |
|---|---|---|
| 59℉ (15℃) | 8 days | 5 days |
| 77℉ (25℃) | 4 hours | 3 days |
| 122℉ (50℃) | 2 hours | 3 days |

## CLEANER & SAFETY

**Cleaner** Use CONTITHINNER 13(SP-13) to clean. In case of spillage, absorb and dispose of in accordance with local applicable regulations.

**Safety Ventilation** Please read and follow all caution statements on this product data sheet and MSDS for this product. Proper ventilation and protective measures must be provided during application and drying to keep solvent vapor concentrations within safe limits and to protect against toxic or oxygen deficient hazards.

## PACKAGE, HANDLING & STORAGE

**Shelf Life** Minimum 12 months under normal conditions.

**Shipping Weight**
1 Gallon Kit – Part A：2.3 kg Part B：7.7 kg
3 Gallon Kit – Part A：6.9 kg Part B：23.1 kg

**Storage Temperature &Humidity**
5-35℃ (41-95℉)
0-90% Relative Humidity

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## PACKAGE, HANDLING & STORAGE

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|---|---|
| **Flash Point** | Part A：77°F (25℃)<br>Part B：77°F (25℃) |
| **Storage** | Base and zinc powder storage cannot sunlight exposure or temperature exceeds 104°F (40℃) |