ZRC ZERO VOC® Water-Based Galvanizing Compound

ZRC’s revolutionary new water-based galvanizing compound offers a solution to problems of traditional inorganic zinc and solvent-based coatings.

Enjoy the following great benefits with ZRC’s ZERO VOC:

- No solvents or solvent fumes
- 93% zinc in the dry film using only Type III “ultra pure” ASTM-D-520 zinc
- Extreme temperature and abrasion resistance
- ISO 9001 registration assures the highest quality consistently
- Meets and exceeds Fed. Spec. DOD-P-21035A (Galvanizing Repair Spec); MIL-P-26915A (USAF Zinc Dust Primer); SSPC-Paint 20 (Specification for Zinc-Rich Primer)
- Passes 10,000 hours salt spray testing without failure (ASTM Des. B117)
- Passes Preece Test (ASTM Des. A239) for hot-dip galvanizing

For specification assistance, application assistance, test reports and product selection please contact our customer support at (800) 831-3275 or our website www.zrcworldwide.com.

THE ZRC ZERO VOC DIFFERENCE

ZRC ZERO VOC solves the problems inherent in traditional inorganic zinc coatings: near-white sandblasting, difficult spraying, short pot life. We’ve resolved these issues by creating a unique hybrid featuring the best features of organic and traditional inorganic zinc coatings. As a result, ZRC ZERO VOC offers the same true cathodic protection as our original ZRC, without volatile organic content.

- No sandblasting required*
- Longer pot life
- Applies easily without clogging spray equipment
- More abrasion resistant and faster drying
- One coat coverage with second coat option

*See Surface Preparation section of Technical Specifications

APPLICATIONS

Galvanize bare metal conveniently in your own facility without the transportation and costs of hot-dip galvanizing.

The natural solution for:

- OEM
- Petrochemical plants
- Metal fabricators
- Tanks
- Marine and offshore
- and hundreds more!
**Testing & Specification Conformance Data**

- Meets and exceeds Fed. Spec. DLD-P-21025A, formerly MIL-P-21035 (Galvanizing Repair Spec.)
- Meets and exceeds Fed. Spec. MIL-P-26915A (USAD Zinc Dust Primer)
- Passes over 10,000 hours salt spray testing without failure** (ASTM Des. B117)
- Passes Preece Test (ASTM Des. A239) for hot-dip galvanizing
- Meets and exceeds SSPC-Paint 20 (Specification for Zinc Rich Primer), Type II (organic), Level I, Type III zinc dust

**Technical Data**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
<td>Two-pack water-based galvanizing compound</td>
</tr>
<tr>
<td><strong>Theoretical Coverage</strong></td>
<td>300-350 ft² (28-33 m²) per gallon kit @ 1.5 mil (38 μ) dry film thickness</td>
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<tr>
<td><strong>Metalllic Zinc Content</strong></td>
<td>93% by weight in dry film</td>
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<tr>
<td><strong>Flash Point</strong></td>
<td>None</td>
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<tr>
<td><strong>VOC Content</strong></td>
<td>0 lbs/gal (0 gms/ltr) (ASTM D3960)</td>
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<tr>
<td><strong>Weight per Gallon</strong></td>
<td>25.2 lbs. (ASTM D1475)</td>
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<tr>
<td><strong>Solids Content</strong></td>
<td>81% (by weight)/43.7% (by volume)</td>
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<tr>
<td><strong>Viscosity</strong></td>
<td>525 cps. Brookfield RVT spindle #5 @100 RPM, 25°C</td>
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<tr>
<td><strong>Maximum Service Temp - Intermittent</strong></td>
<td>1700°F (927°C)</td>
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<tr>
<td><strong>Maximum Service Temp - Constant</strong></td>
<td>1200°F (694°C)</td>
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<tr>
<td><strong>Electrical Conductivity</strong></td>
<td>2 million ohms per square @ 3 mils dry (resistivity)</td>
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<tr>
<td><strong>Adhesion</strong></td>
<td>275 lbs./in² (ASTM D 4541, Elcometer Model F106)</td>
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<tr>
<td><strong>Impact Resistance</strong></td>
<td>Greater than 172 inch lbs. (extrusion) (per ASTM-D2794)</td>
</tr>
<tr>
<td><strong>Pot Life</strong></td>
<td>24 hours (longer times before use will result in diminished performance)</td>
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<tr>
<td><strong>Shelf Life</strong></td>
<td>2 yrs.</td>
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<tr>
<td><strong>Packaging</strong></td>
<td>One-gallon kits</td>
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<tr>
<td><strong>Dry Time</strong></td>
<td>Set to touch. When ambient air dried, 15 minutes at 1.5 mil (38μ) thickness</td>
</tr>
<tr>
<td><strong>Additional Coats</strong></td>
<td>Additional coats - up to 6.0 mils total dft (152 μ) -may be applied. Allow a 4 hr. minimum cure time at 25°C/77°F to extend corrosion protection</td>
</tr>
<tr>
<td><strong>Topcoating</strong></td>
<td>After 24 hrs., topcoat with acrylic, epoxy, urethane or vinyl type products. Consult our Guide to Topcoating for detailed instructions.</td>
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</tbody>
</table>

**Surface Preparation**

Dependant upon surface condition and intended service. Typical examples include:

- **Grease & Oils**
  - Solvent clean to SSPC-SP1
- **Rust Scale**
  - Power tool clean to SSPC-SP3 or SSPC-SP11 (SIS St 2 or 3)
- **Mill Scale**
  - Sandblast to SSPC-SP6 (commercial)
- **Water Immersion**
  - (100°F maximum) Sandblast to SSPC-SP10 (near-white)

**Application**

- **Brush/Roller**
  - Apply as received in container. For Brush Application, use 100% Natural 100% Chinese bristle brushes. For Roller Application, use 3/8” nap rollers, made of mohair or lambs wool (sheepskin).
- **Spray (low pressure compressor type)**
  - Atomized air pressure: 50 lbs/in² = 3.5 kg/cm²
  - Fluid pressure: 15-20 lbs/in² = 1.1-1.4 kg/cm²
  - Orifice of tip: 0.080 inches (0.20 cm)
  - Viscosity reduction: Add water only if absolutely necessary
- **Spray (airless type)**
  - Pump: 30:1
  - Hose: 1/2” (1.3 cm) (I.D.)
  - Orifice of tip: 60°-0.026 inches (0.07 cm)
  - Type of tip: Tungsten carbide, reversing
  - Filter screens: Complete removal is recommended. However, if screens are employed, use no less than 30 mesh.
  - Viscosity: No reduction required
  - Recommended procedure: Connect hose directly to pump, without filter assembly, ensuring a hose length of 50 ft. max. Use in-pot agitator or continuous recycling. Use least pressure possible. Start at 1500 lbs/in² = 105 kg/cm² and increase as required for good spraying.

**Clean-up**

- Water

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**ZRC Worldwide** has been registered to the International Organization for Standardization ISO 9001:2000 standard for quality. ZRC Worldwide is committed to maintaining the highest standards of quality and consistency in all of its zinc-rich coatings, ensuring that customers receive the best possible performance from their protective coatings.

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