

Interzinc® 90 – Epoxy Zinc-Rich Primer

Full Technical, Performance & Industrial Application Catalog

Prepared Exclusively for rang-galvanize.ir

This comprehensive catalog provides an extended engineering, scientific, and industrial-level technical overview of **Interzinc® 90**, one of the most advanced two-component epoxy zinc-rich primers developed for severe corrosion protection. Containing **90% metallic zinc in the dry film**, Interzinc 90 offers both barrier protection and active cathodic protection, making it a preferred choice for offshore structures, petrochemical facilities, power plants, refineries, bridges, marine terminals, and highly corrosive industrial environments. This expanded document is designed specifically for **rang-galvanize.ir** to support engineers, consultants, contractors, inspectors, NACE/FROSIO personnel, and coating specialists in selecting and applying the most effective zinc-rich protective system for long-term corrosion control.

1. Product Overview

Interzinc® 90 is a high-performance epoxy zinc-rich primer formulated with a very high loading of metallic zinc dust. With 90% zinc content in the dry film, the coating sacrifices itself to protect steel against corrosion by electrochemical (galvanic) action. This level of zinc loading places Interzinc 90 among the most reliable primers for critical infrastructure where long-term corrosion control is essential.

2. Understanding Zinc-Rich Corrosion Protection

Zinc-rich primers operate using two mechanisms: **1. Barrier Protection:** The epoxy matrix forms a dense, impermeable coating that resists water and oxygen ingress. **2. Cathodic (Sacrificial) Protection:** Because zinc is more reactive than steel, zinc particles corrode first, preventing steel oxidation. This reaction continues as long as sufficient zinc content remains connected within the coating. Interzinc 90, with its extremely high zinc loading, ensures sustained cathodic protection even in harsh C5-M or offshore atmospheric categories according to ISO 12944.

3. Key Features & Advantages

Feature	Description
90% Zinc in Dry Film	Exceptional cathodic protection and superior corrosion resistance.
Fast Recoat Window	Allows productivity in fabrication shops and onsite application.
Wide Application Compatibility	Works with Intergard, Interseal, Interzone, and high-build topcoats.
Industrial Durability	Designed for the world's toughest industrial and marine environments.
Meets International Standards	Complies with BS5493, BS4652:1995 and global protective coating norms.
High Surface Tolerance	Performs reliably on properly blasted Sa 2½ steel surfaces.
Immersion Suitability	Requires ≥65 microns DFT for water immersion service.
Shop + Field Use	Excellent for fabrication shops, welding areas, and industrial maintenance.

4. Full Technical Specifications

Property	Value
Colour	Grey
Gloss Level	Matt
Volume Solids	Approximately 60%
Dry Film Thickness (DFT)	50–75 microns
Wet Film Thickness (WFT)	83–125 microns
Theoretical Coverage	8 m ² /litre at 75 microns

Application Methods	Airless, Air Spray, Brush, Roller
Touch Dry at 25°C	≈ 25 minutes
Hard Dry at 25°C	≈ 90 minutes
Min. Overcoat Interval	≈ 4 hours
Mix Ratio	4:1 Base : Hardener
Pot Life	8 hours at 25°C
Flash Point	32°C
VOC	149 g/kg

5. Surface Preparation Requirements

Steel must be abrasive blast-cleaned to **ISO 8501-1 Sa 2½**. A profile of **40–75 microns** is required to ensure mechanical adhesion. Additional requirements: • Remove oil/grease per SSPC-SP1 • Remove zinc salts before overcoating aged coatings • Ensure steel temperature is at least 3°C above dew point Interzinc 90 is not suitable for application over contaminated surfaces. Cleanliness = performance.

6. Application Guidelines

Mixing: Mix full kits only. Mechanically agitate until uniform. **Application Methods:** • Airless Spray: 0.43–0.53 mm tip • Air Spray (Pressure Pot) • Brush/Roller for touch-ups
Environmental Conditions: • Do not apply below 5°C • Maintain RH < 85% • Avoid over-thickness to prevent cracking **Drying Times by Temperature:** • 10°C → Touch: 45 min | Hard: 6 hrs • 25°C → Touch: 25 min | Hard: 90 min • 40°C → Touch: 20 min | Hard: 45 min

7. Compatible International® Topcoats

Interzinc 90 is fully compatible with the following high-performance coating systems: • Intergard 251 • Intergard 269 • Intergard 400 / 405 / 410 • Interseal 670HS • Interzone 505 • Interzone 954 • Intersheen 73 For multi-coat system design or ISO12944 consultation, visit rang-galvanize.ir.

8. Industrial Use Cases

• Offshore rigs, jackets, and subsea steel • Petrochemical vessels, pipes, and structural steel • Power generation facilities • Ports, marine terminals, and coastal structures • Bridges and infrastructure exposed to harsh weather • Industrial plants with chemical exposure

For technical support, coating design, system recommendations, and industrial solutions, visit:

<https://rang-galvanize.ir>

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