
PLOT NO. 60/61, PANDOL INDUSTRIAL AREA, VED ROAD, KATARGAM,
SURAT, GUJARAT -395004

TECHNICAL DATA SHEET RP- 312

TWO COMPONENT INORGANIC ZINC SILICATE COATING

Product Description

A self-curing inorganic zinc primer consisting of a basic zinc silicate complex. It protects steel substrates from corrosion through a **cathodic protection mechanism**.

The coating provides:

- Excellent corrosion resistance
- Outstanding application workability
- Excellent weathering resistance
- High-temperature resistance up to **400°C (752°F)** (untopcoated)
- High-build formulation allowing up to **175 µm DFT** in a single coat without mud cracking.

Physical Properties

Property	Details
Finish	Flat
Color	Grey
Specific Gravity	Approx. 2.0–2.2 (Mixed)
Solids by Volume	Approx. 73%
Theoretical Spreading Rate	9.7 m ² /L at 75 µm DFT
Flash Point	Liquid: 13°C (55°F), Closed Cup; Zinc Filler: N/A
VOC	605 g/L (Including maximum dilution ratio)

Surface Preparation

Before painting:

- Remove oil, grease, dirt, salts and contaminants.
- Clean using solvent cleaning and fresh water washing.
- Abrasive blast clean to **Sa 2.5 or Sa 3**.
- Obtain surface profile of **40–75 µm**.
- Weld seams and repaired areas:
 - Blast clean to Sa 2.5 or Sa 3
 - Or Power Tool Cleaning to St3 (16-mesh disc grinder)

Application Method

Spray Application

Suitable for:

- Airless Spray
- Conventional Air Spray

Airless Spray Settings

Parameter	Specification
Nozzle Orifice	0.019–0.025 in (483–635 µm)
Pressure	6.2–13.8 MPa
Spray Fan	40°–65°

Mixing Ratio

Component	Quantity
IZ180(N) Liquid	14.84 L
Zinc Filler	3.16 L

Mixing Procedure

- Slowly add Zinc Filler into the Liquid.
- Use continuous mechanical stirring.
- Filter through a **30–60 mesh screen** before application.

Thinning

Thinner	Application
Thinner No. 0608	Normal conditions (Maximum 10%)
Thinner No. 0614	Hot weather (>25°C) or windy conditions

Application Conditions

- Surface must be clean and dry.
- Steel temperature should be at least **2.7°C (5°F)** above dew point.
- Provide adequate ventilation in confined spaces.
- Recommended application temperature:
 - **-18°C to 49°C**
 - (15.8°F to 120°F)

Film Thickness

Property	Value
Recommended Dry Film Thickness (DFT)	75 µm
Maximum Single Coat DFT	175 µm

Drying Time

Substrate Temperature	Set to Touch	Dry Through
5°C	2 hrs	20 hrs
10°C	2 hrs	14 hrs
20°C	30 mins	10 hrs
30°C	30 mins	6 hrs

Actual drying times vary depending on film thickness, humidity and ventilation.

Subsequent Coating

Compatible topcoats include:

- Korepox
- Kovinyl
- Korabor Systems
- Other suitable topcoats

Mist Coat Procedure

- Thin below **30%**.
- Apply with minimum overlap.
- Confirm appearance before applying the main coat.

If bubbling (popping) occurs during overcoating, consult the technical department.

Pot Life

Temperature	Pot Life
20°C (RH 65%)	10 hours

Heat Resistance

Untopcoated

Service	Temperature
Continuous	400°C (752°F)
Non-continuous	427°C (800°F)

With High Temperature Silicone Topcoat

Service	Temperature
Continuous	540°C (1004°F)

Storage & Packaging

Shelf Life

Component	Shelf Life
IZ180(N) Liquid	6 months
Zinc Filler	12 months

Storage temperature: **25°C (77°F)**

Storage Conditions

- Store in a cool, dry place.
- Protect from direct sunlight.
- Keep away from heat sources.
- Temperatures above **25°C** may shorten shelf life and cause gelation.
- Recommended use within approximately **5 months**.

Packing Unit

Component	Quantity
IZ180(N) Liquid	14.84 L
Zinc Filler	3.16 L

Safety Precautions

- Avoid skin and eye contact.
- Do not inhale solvent vapors.
- Use adequate ventilation.
- Wear respiratory protection in confined spaces.
- Follow standard industrial safety practices.

Standards & Compliance

- ISO 9001:2015 Zinc Weight Requirement
- SSPC Paint 20 – Level 2
- ASTM D520 Type II Zinc Dust

Product Advantages

- Self-curing inorganic zinc primer
- Cathodic corrosion protection
- High zinc content
- Excellent weather resistance
- High-temperature resistance
- High-build application (up to 175 µm DFT)
- Excellent adhesion
- Excellent durability
- Suitable for heavy-duty industrial and marine steel structures



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Website: www.rudrapaint.com

E Mail:- rudrapaint@yahoo.com

THE FUTURE OF SURFACE PROTECTION

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