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Technical Data Sheet

ROVAL® Cold Galvanizing Compound

Conforms to MIL-P-21035 and ASTM A780

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DESCRIPTION

ROVAL Cold Galvanizing Compound is a single pack type high quality liquid organic zinc rich compound. The dried film of ROVAL Cold Galvanizing has a 96% high zinc (ASTM D520 type II) content. It provides long-lasting galvanic anti-corrosion protection to metals.

PROPERTIES

▲ High anti-corrosion performance-------Cathodic Protection

Unlike normal paints, which only provide barrier protection, ROVAL products also provide cathodic protection on steel and ferrous metals. If rust occurs, it will not creep under the film. The anti-corrosion performance is dependent upon the content of zinc in the compound and the film thickness.

▲ Cathodic and Barrier Protection-------Self healing

The zinc is sacrificed as it offers cathodic protection. In turn zinc corrosion products are formed, which cause the coating film become denser and more impervious to damaging elements. This restorative action makes the coating resistant to weather, water etc... If the coating film is damaged, fresh zinc is primed to provide galvanic action.

▲Single pack type------- Easy to mix, Easy to paint

Unlike other paints, which have two or three components, ROVAL products are a single pack zinc rich compound. There is no limited pot life, no complex mixing methods, and no painting skills required. This product simply requires thorough mixing and sufficient film thickness is obtained, it is very easy to use.

▲ Fading --------Due to exposure, the film's color will change

Zinc gradually oxidizes in the air, causing color of galvanization to change. Roval products possess similar fading characteristics to galvanization.

▲ Electric Conductivity

ROVAL products are not necessarily conductive paints, but they may conduct the static electricity from a human body, to the steel or ferrous metals underneath the film.

▲ Topcoat

ROVAL also is topcoat. ROVAL offers more anti-corrosion capability than other topcoat.

APPLICATIONS

This product can be used extensively in the maintenance and restoration of damaged or worn galvanized metal and for the long term anti-corrosion protection of steel/iron structures or equipment.

TECHNICAL DATA

● Color	Gray
● Specific Gravity	2.50±0.05kg / L (20.8lbs / gal)
● VOC	555g / L (4.63 lbs/gal)
● Theoretical Coverage	2m² or 21.5ft² / kg (dft = 3.2mil)
● Recommended Film Thickness	3.2mil or 80μm
● Heat-Resistance	Continuous 212 °F (100°C) max Non-continuous 338 °F (170°C) max
● Cold-Resistance	-76 °F (-60°C) for 1008hrs
● Dry to Touch Time	20-30 mins (at ambient temperature)
● Recoat time	(2nd coat of ROVAL) 3-6 hrs (Optional Top coat) > 24 hrs

(Optional topcoat can be applied. DO NOT TOPCOAT WITH ALKYD, ALKYD-MODIFIED ACRYLIC, OR, LACQUER TYPE PRODUCTS.)

● Pencil hardness:	B-HB (Hardness will be improved after exposure.)
● Cross cut test:	100 / 100
● Impact resistance:	500g 1/2"×50cm
● Salt Spray Test	2184 hours (Tests recorded as high as 4032hours.)
● Exterior Exposure:	10 years no rust happened.
● Application Conditions	Temperature 41 °F ~ 122 °F Humidity < 85%
● Shelf life:	3 year (Sealed can when stored properly) * Can be used after being re-evaluated even post shelf life.

DIRECTIONS

-Surface Preparation

ROVAL must be applied directly to steel or galvanized surfaces. If old paint exists on the surface to be painted, please remove it, or it will compromise the anti -corrosion performance.

Steel/Iron surfaces:

Clean the surface to be free of all grease, oil, loose rust, and other foreign contaminants, especially marine salt. In a high corrosive environment, or if high anti corrosion performance is required, the following is recommended:

- Sandblasting to ISO Sa 2 1/2 or SSPC SP-10 is sufficient.
- Surface profile should be Rz30μm - 70μm.
- Salt deposit density should be below 50mg / m².

Under normal atmospheric environments, or if sandblasting cannot be used, the following is recommended:

- Power tool clean to ISO St3 or SSPC SP-3 is sufficient.
- Surface profile should be Rz30μm - 70μm.
- Salt deposit density should be below 50mg / m².

Galvanized surface:

Clean the surface to be free of all grease, oil, salt, loose rust and other foreign contaminants.
Rub the zinc salt with sandpaper to ISO St2 or SSPC SP-2.
Salt deposit density should be below 50mg / m².

Rovalized surface:

Clean the surface to be free of all grease, oil, salt, loose rust and other foreign contaminants.
Rub the zinc salt with sandpaper to ISO St2, SSPC SP-2.
Salt deposit density should be below 50mg / m².

NOTE: Coating must be done within two hours after surface preparation.

MIX

Because of the high content of zinc powder, sediment is easily produced during storage. So before using it, sufficient agitation is essential. Be certain that there is no sediment at the bottom of the can.
Also, the product must be constantly agitated while in use.

APPLICATION

Brush/Roller:	Use a good quality soft brush which can absorb plenty of paint. Do not over extend the film or leave brush marks while painting. Leave adequate DFT. Do not dilute.
Conventional Spray:	Size of Tip Orifice --- 1.5-2.0 mm Atomized Air Pressure--- 0.29MPa Dilute thinner under 5 % (weight)
Airless Spray:	Pump--- 30:1 Ratio Size of Tip Orifice --- above 0.48-0.63 mm Atomized Air Pressure--- 10MPa Dilution not required.

PACKAGING

2.5kg (5.5lbs): 4 cans / case
25kg (55.1lbs): 1 pail / unit

PRODUCTION NUMBER

Sample: [W C R 09 06 25 C]

WCR: Product Code; 09: Year; 06: Month; 25: Day;

C: Batch Number (A:1st, B:2nd, C:3rd…)