



# DRI-GARD ZN-80

## Film Galvanizing System

**DRI-GARD ZN-80** is a ready-to-use zinc rich coating and allows galvanic protection by standard painting application methods. It is a cold galvanizing compound that effectively prevents the corrosion of steel substrates in the same manner as hot dip galvanizing. When applied to a ferrous surface, the zinc in **DRI-GARD ZN-80** sacrifices itself to protect the substrate.

## FEATURES/BENEFITS

- ✓ Anti-corrosion – protects steel with galvanized reactions
- ✓ Fast drying
- ✓ Single coat protection
- ✓ Easy application
- ✓ As a protective primer in multi-coat paint systems

## APPLICATION AREAS

- ✓ Steel structures
- ✓ Reinforcement steel bars
- ✓ Repair material for galvanized steel that has been damaged mechanically



**DRITECH CHEMICALS SDN. BHD. (1184082-K)**

23-3A, Oval Damansara, 685, Jalan Damansara, 60000 Kuala Lumpur, Malaysia  
TEL: +603 7735 6015, FAX: +603 7735 6016

### Product Data

Appearances / Colors	Matt
Packaging	5kg cans
Storage	12 Months from date of production
Storage Condition	Kept in cool, dry, well ventilated place and protected from extreme heat and high temperature. Containers must be kept tightly closed.

### Technical Data

Origin	Synthetic polymer based zinc rich coating		
Temperature Resistance (dry)	-40 °C – 120 °C (with peaks up to 150°C)		
Solid Content	~ 80% (by volume)		
Chemical Resistance	<b>Exposure</b>	<b>Splash &amp; Spillage</b>	<b>Fumes</b>
	Acids	Poor	Poor
	Alkalis	Poor	Poor
	Solvents	Poor	Good
	Salt Water	Excellent	Excellent
	Water	Excellent	Excellent

### Application conditions

Consumption	<ul style="list-style-type: none"> <li>Recommended Thickness: 60 microns (dry film thickness, DFT)</li> <li>Theoretical Coverage: <ul style="list-style-type: none"> <li>0.28 kg/m<sup>2</sup> at 60 microns DFT</li> <li>0.55 kg/m<sup>2</sup> for 120 microns DFT</li> </ul> </li> <li>No. of coats: 1 or 2 coats recommended</li> </ul>
Drying time (Subjected to environmental conditions)	<ul style="list-style-type: none"> <li>Touch dry: 15 minutes</li> <li>Dry to handle: 1 hour</li> <li>Fully cured: 48 hours</li> </ul>
Overcoating time	<ul style="list-style-type: none"> <li>Application by brush: 2 hours after touch dry</li> <li>Application by spray gun: 1 hour after touch dry</li> </ul> <p><i>The maximum overcoat time depends on environmental conditions. If zinc salts have formed, they should be removed prior to application.</i></p>
Thinning	<ul style="list-style-type: none"> <li>Brush/Roller: 3 – 5%</li> <li>Conventional Spray: 10 – 20%</li> <li>Airless Spray: 5 – 7%</li> </ul>

## **SUBSTRATE**

### **Cleanliness**

The metal substrate should be degreased, preferably by steam-cleaning at 140 bar at 80 °C, and subsequently gritblasted/slurry-blasted to cleanliness degree SA 2.5 (according to ISO 8501-1:2007 or SSPC-SP10 and NACE nr 2). The surface should be free from rust, grease, oil, paint, salt, dirt, mill scale and other contaminants. Once the grit-blasting is completed, the surface should be de-dusted with non-contaminated compressed air (according to ISO 8502-3 (class 2)) or in case of slurry-blasting, the surface should be dried with non-contaminated compressed air. Another method to obtain clean surface is UHP water-jetting to cleanliness degree WJ2 (according to NACE nr 5 and SSPC-SP12 level SC1). This degree of cleanliness is also needed when applying subsequent layers of DRI-GARD ZN-80.

For non-immersed substrates, DRI-GARD ZN-80 may be applied on mild flash rust (FWJ-2) occurring (after wet blasting) in the allowed time limit, however results may not be optimal. For immersed substrates, DRI-GARD ZN-80 can only be applied on a SA2.5 prepared surface with contaminants to NACE No5/SSPC SP-12 level SC1.

On small areas/non-critical applications, DRI-GARD ZN-80 may be applied on a surface that is manually prepared to a degree of St 3 according to ISO 8501-1.

### **Roughness**

DRI-GARD ZN-80 should be applied on metal substrate that has roughness grade of fine to medium G (Rz 40 to 70 microns) according to ISO 8503-2:2012. This may be obtained by grit-blasting (with sharp particles) but not shot-blasting (spherical particles). Ensure that surface is degreased before grit blasting.

This high degree of roughness is not needed when DRI-GARD ZN-80 is applied on a hot-dip galvanization or a metallization layer, or when it is applied on existing DRI-GARD ZN-80 coatings. Old hot-dipped surfaces have adequate roughness, new hot-dipped surfaces require a sweep blast.

## **APPLICATION & TOOLS**

Do not apply when the surface temperature is less than 3°C above the dew point. DRI-GARD ZN-80 can be applied by brush, roller, conventional spray-gun or airless spraying. Hold gun 8 – 10 inches from the surface and at a right angle to the surface. Make a 50% overlap with each pass of the gun.

Clean all tools and application equipment with thinner immediately after use. Hardened and/or cured material can only be removed mechanically.

### **LIMITATIONS**

- ❖ Not recommended for immersion without suitable top coats
- ❖ Not recommended for exposure to strong acids and alkalis
- ❖ Do not apply on damp or wet surface

## **HEALTH & SAFETY**

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

## **LEGAL NOTE**

The information, and, in particular, the recommendations relating to the application and end-use of these products, are given in good faith based on current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance to the manufacturer recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. The manufacturer reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.