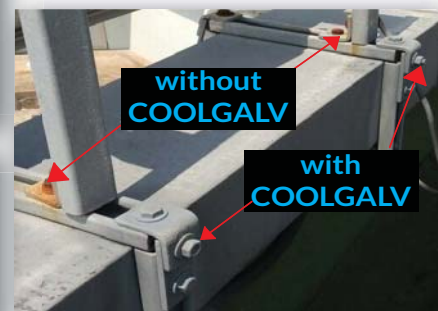


Massive costs on maintenance and repair works of aged or damaged steel structures are often a major concern for asset owners. Repair works are usually complicated and time consuming. Hence, keeping maintenance to a minimum has thus become of paramount importance to all asset owners.

**COOL GALV** provides the solution by simplifying maintenance and repair works of any aged or damaged structures. Utilizing nanotechnology and specially-formulated resins, it gives superior anti-corrosion performance that is similar to coatings applied using Hot-Dipped Galvanization. Most importantly, application is simple, cost effective and environmentally friendly.

## MAJOR FEATURES

- 1 Most Advanced IN-SITU film galvanizing system which gives 96% zinc in dry film for Active Cathodic Protection comparable to Hot-Dipped Galvanizing(HDG)
- 2 Nanotechnology and special resin to stabilise and control the depletion of the ultra fine atomized zinc dust
- 3 One component metallic coating with no limitation on pot life and shelf life
- 4 Easy to replenish/recharge the old Cool Galv by blending into homogeneous single paint film
- 5 Easy to repair and replenish aged/damaged hot-dipped galvanizing or thermal spray structures
- 6 Paint film will not crack, come loose to peel off like Inorganic Zinc or Epoxy Zinc systems



## Limitations of Conventional Cold-Galvanizing Paint

Based on study, for an effective cathodic protection, the zinc content in dried film must be > 92%.

The conventional 'cold galvanizing' paint in the market either contains a lower amount of zinc or it is just a metallic paint that acts as cosmetic paint for Hot-Dipped Galvanizing structures without any anti-corrosive protection.

RUSTED AND PEELED-OFF USING CONVENTIONAL COLD GALVANIZING PAINT

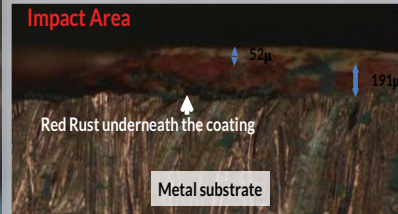


### ACTIVE CATHODIC PROTECTION VS PASSIVE BARRIER PROTECTION

**Conventional** epoxy primer and protective coating system only provides passive barrier protection by blocking contact of water/moisture and oxygen with the metal substrate. Once breakdown of the paint film occurs due to mechanical damage or natural deterioration of the polymer, water and oxygen will seep through and corrosion will begin, resulting in the breakdown of the barrier coating.

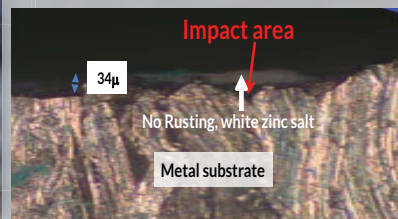
**Cool Galv** provides active cathodic protection and acts as sacrificial anode to protect the underneath metal substrate. The paint film is further fortified for barrier protection once the atomised zinc particles are oxidised and the metal is still protected from corrosion even if there is a slight breakdown of paint film.

#### EPOXY PAINT SYSTEM ( PASSIVE SYSTEM)



**Consequences :**  
Corrosion happened at impact area ( breakdown of paint film) with formation of iron oxide which is 6 times the volume, it will caused the paint film to peel off and steel corroded.

#### COOL GALV ( ACTIVE SYSTEM)



**Consequences :**  
Zn is consumed/ sacrificed instead of iron (substrate) at impact area and metal is protected against corrosion through active cathodic protection.

### THE ADVANTAGES OF COOL GALV SIMPLE, SUPERIOR & SAVE

#### SIMPLE - Ease of Application

- 1-Pack product with no shelf life and pot life
- Easy to apply by brush, roller, spray or dipping
- Minimum surface preparation (Sa 2.5, Sa2.0 , St 3 or St 2)
- Can apply on damp surface after high pressure water-jet cleaning
- As topcoat by itself or duplex system with PU, Epoxy, Acrylic
- Easy to carry around & use for new building or repair of Hot-dipped galvanizing, thermal-spray, bare & coated steel structures

#### SUPERIOR - Long Term Protection

- Lifetime protection like Hot-dipped Galvanizing (HDG)
- Active Cathodic Protection like HDG but apply as a paint
- Passed 3000 hours of Salt Spray as per PTS 15.20.03-2017 & PTS 30.48.00.31-P (2012) tested by SIRIM QAS
- Comply to ISO 12944-6 C5M / C5I High ( Tested by TUV SUD PSB / SIRIM)
- Require 80-160 microns in 1-2coats for protection expectancy up to 15 years
- Good mechanical properties and paint film will not crack or peel off

#### SAVE - Cost Effective and Environmentally Friendly

- Non-toxic - does not contain Xylene, Ethyl benzene or MEK
- Cheap & effective as an alternative to Hot-Dipped Galvanizing (HDG)
- More economical than conventional 3-coat system
- Extend service life of HDG and metallising structures by replenishing and restoring the Active Cathodic Protection
- Reduce maintenance- extend maintenance cycle with minimum secondary surface preparation



STORAGE TANKS



OFFSHORE STRUCTURE



MARINE STRUCTURES



TRANSMISSION TOWER



ROAD INFRASTRUCTURE

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