

Product Description

Cool- Galv and Cool-Galv+ is an advanced film galvanising single pack metallic coating, using ultra fine atomized zinc dust that treated with nano technology and comply to ASTM D520 type II. Cool-Galv provides 96% zinc content in dry film for long term corrosion protection of steel thru cathodic protection and anti rust treatment. The special resin used enable electrochemical bonding between zinc particle and metal surfaces. It is non toxic and does not contain Xylene, Toluene, MEK or Methylene Chloride. Cool-Galv+ is a coloured film galvanising metallic coating and can be used as top coat for Cool-Galv film galvanising system.

Features

- Good durability in wide range of corrosive environment. Complied to ISO12944-6 C5I / C5M High Durability.
- Easy to use – spray, brush , roller
- Excellent adhesion properties to blasted steel and hot dip galvanising structures.
- Excellent anti corrosion and rust inhibiting properties. Passed 3000hrs salt spray as per Petronas Technical Standard PTS 15.20.03-17.
- Resistant to mechanical shocks, abrasion and erosion.
- Will not crack, flaking or peeling off.
- Effective, Reliable and Cost Saving for assets maintenance.
- Excellent to replenish existing Cool Galv coating, aged galvanised and repair of hot dip galvanising structures.
- Enable two coats duplex system for corrosion and cosmetics purposes.

Typical Uses

Repair and maintenance of bare metal, damaged zinc substrate and hot-dip galvanization. Anti corrosion primer for steel structures such as internal and external of pipelines, silos, tanks, sheet of corrugated steel, fences, gates, bridges, bolts and nuts, containers, supports/trust, etc for industrial, construction, ship building, off-shores structures Protection for welding seams, grating, metal sheet, and areas difficult to paint.

Physical Data

	Cool-Galv	Cool-Galv+
Colour	: Grey	Grey, Silver
Flash Point	: 42 °C	42 °C
VOC	: 489g/L	486g/L
Volume solid	: 58 +/- 2%	58 +/- 2%

Shelf Life @ 25°C/indoor : unlimited (for prolong storage, it is recommend to shake by auto shaker once every two years)

Typical Thickness : 50 ~ 75µ dried film.

Drying Time(at Dry Film Thickness 60µ)	Temperature	10°C	20°C	30°C
	Surface Dry		30mins	20mins
Hard Dry		3 hrs	1.5 hrs	1 hrs
Painting interval:	Minimum	3 hrs	1.5 hrs	1 hrs
	Max. (self)	-	-	-
Theoretical coverage (at DFT 60-90µ)		0.10~0.16 L/m ² ; 10.0~ 6.2 m ² /L		
Service temperature		-60 to 180°C (dry)		

Application Data

Thinner : Hana Cool Galv Diluent

Application Method : airless spray, roller, brush

Mixing Procedure : Mix for at least two minutes or until homogeneous.

Drying schedule : Drying by solvent evaporation and moisture curing. Higher film thickness, insufficient ventilation, or lower temperature will require longer drying time. Excessive humidity or condensation on the surface can interfere with the drying cause discoloration and may result in a surface haze. Any haze or contamination must be removed by water washing before recoating.

This product requires the substrate temperature to be above the dew point (+ 3~5 °C). Condensation due to substrate temperatures below dew point can cause flash rust on metal and adhesion will be affected.

Application Procedure

Mix properly the paint before use.

- Flush equipment with Cool Galv Diluent before use.
- Mix the paint thoroughly until homogeneous.
- Thin with Cool Galv Diluent only if necessary for workability.
- When applying by conventional spray, use adequate air pressure and volume for proper atomisation.
- Apply a wet coat in even parallel passes, overlap 50% to avoid holidays and pin hole.
- Excessive thickness can prolong drying and sagging.
- Clean up all equipment with thinner immediately after use.
- Keep containers tightly close and store in proper storage area.

Condition of Application

Use brush or roller with 1/8" nap . Apply at sufficient thickness and avoid repeating rolling to have good levelling.

- Temperature : Min 5 ° C ; Max 50 ° C
- Humidity : Maximum 85 % R.H.
- For Airless spray :-
- Tip Size : Graco 721, 723 or equivalent
- Paint Output : 11.7 – 17.7 MPa (g)
- pressure
- Viscosity : 25 ~ 40 sec Ford Cup No 4
- Thinning : 0 – 10 % by volume

Surface Preparation

General :
Surfaces must be clean and dry, all contaminants like dirt, dust , oil must be remove by appropriate method to ensure good adhesion.

Abrasive blast clean
Abrasive blast clean to Sa 2.5 (ISO-8501) or SSPC-SP6. In case of hydro blasting or hydro jetting to remove existing coating, ginger rust should be remove and blow dry before application. Surface profile must be a minimum of 50 microns.

Shop primed steelwork
Weld seam and damaged area should be cleaned to a minimum St3 or SSPC-SP3. The shop primed steelwork should be repair for any rust and free from any contaminant with suitable secondary surface preparation such as spot blast , sweeping or power tooling.

Performance Data

Properties	Test Method	Evaluation
Pull off Strength	ASTM D4541-02	> 15kgf /cm ²
Salt Spray (5% NaCl solution)	ASTM B117	1500hrs , passed C5M, as system
Humidity (50 °C, 100% RH)	ASTM D1748	1000hrs , passed C5M, as system

Safety Precaution and Clean-up

Safety: Read and follow the material safety data sheet (MSDS) before use. Employ normal safety precaution. Put on necessary personal protection equipment when handle and use this product.

Ventilation: when working in a confine workplace, thorough air ventilation must be used during and after application until the coating is cured. The ventilation system should be effective to prevent solvent vapour concentration from reaching lower explosion limit for the product and to ensure exposure limit to the personnel to be below permissible exposure limit.

Caution: All electrical equipment and installations should be made and properly grounded. In area where explosion hazard exist, workmen should be used non-ferrous tools, conductive shoes and non-sparkling tools.

Clean-up: Use Hana Paint epoxy thinner or hydrocarbon solvent for cleaning. Observe safety precaution when use the solvents. In case of spillage, absorb and dispose the material and used container according to local required regulation or through licence waste collector.

Disclaimer
Data, specifications, directions and recommendations given in this data sheet represent test results or experience obtained under controlled or specially defined circumstances. Their accuracy, completeness or appropriateness under the actual conditions of any intended use is not guaranteed and must be determined by user. The products are delivered and any technical assistance is given subject to our GENERAL CONDITIONS OF SALE, DELIVERY AND SERVICE and ,unless otherwise expressly agreed in writing ,manufacturer and seller assume no liability in excess of that stated therein for results obtained, injury, direct or consequential damage incurred from the use as recommended above or otherwise.

Limited Warranty
Whilst we endeavour to ensure that all advice we give about this product is correct and manufacture according to standard quality control system, however we have no control over either the quality or condition of the substrate or many other factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability whatsoever or howsoever arising for the performance of the product or for any loss or damage arising out of the use of this product..