

# HEAT TRANSFER COATING

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# HEAT TRANSFER COATING

**Product Code:** 912 Line

**Specification met:**

## Description

**HEAT TRANSFER COATING (912-Line)** is a powder coating design especially for the sublimation printing process. It provides an exceptionally stable surface for user to print wood-grains and other beautiful patterns onto Aluminium and other metallic substrates.

## Features

## Benefits

High cross-link density	Allow for formation of clear and sharp pattern
Film integrity	Long intact life of coating
Tough film	Hard wearing / serviceable finish
No solvent or emissions	Less waste and pollution to the environment

## Uses

**HEAT TRANSFER COATING (912-line)** is used as a base coat prior to the sublimation printing process. It could be applied to aluminum, steel and other metal substrates. When used in combination with the Sublimation Printing process, it allows the metal surface to be decorated with wood-grain, marble and other innovative patterns. Unlike other printing processes, the finished product is suitable for outdoor usage.

## Performance Guide

<b>Weather</b>	Good resistance to weathering. Suitable for outdoor applications.	<b>Salt Spray</b>	< 3mm adhesion loss at scribe after 250 hours on pre-treated steel panels (ASTM B117)
<b>Heat</b>	Excellent resistance to 120°C continuous service conditions.	<b>Humidity</b>	Good resistance to 38°C/100% humidity for 1000 hours on pre-treated aluminium.
<b>Water Soak</b>	No failure under 1000hrs (32°C)	<b>Abrasion</b>	Excellent resistance to abrasion.
<b>Flexibility</b>	Pass 80 inch/lb	<b>Pencil Hardness</b>	Min 4H
		<b>Cross Hatch Adhesion</b>	No removal

## Chemical Resistance

<b>Ethyl Acetate</b>	Resistant	<b>White Spirits</b>	Resistant
<b>Ethanol</b>	Resistant	<b>Xylene</b>	Resistant
<b>Methyl Ethyl Ketone</b>	Resistant	<b>Dulon AAA Thinners</b>	Resistant
<b>10% Acetic Acid</b>	No effect (100hrs)	<b>10% Ammonium Hydroxide</b>	No effect (100hrs)
<b>10% Hydrochloric Acid</b>	No effect (100hrs)		

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## Product Guide

<b>Colour</b>	A wide range of made to order colours	<b>Specific gravity</b>	1.3 - 1.7 @ colour
<b>Gloss Level</b>	Matt/Semi-gloss	<b>Shelf life</b>	12 months when stored below 30°C/dry conditions

## Application Data

<b>Application Method</b>	Electrostatic spray.		
<b>Clean Up</b>	Dust or vacuum loose powder. Avoid use of compressed air.		
<b>Cure Schedule</b>	<b>Metal Temperature (°C)</b>	<b>Time (minutes)</b>	
	210	15	
	200	20	
	180	25	
<b>Cured Film Thickness</b>	Recommended:	60 µm	
	Range:	40 – 120 µm	

### Theoretical spreading rate at recommended film thickness

A covering rate of 10 - 12m<sup>2</sup>/kg is commonly experienced. Practical spreading rates will vary due to such factors as method and conditions of application and surface profile and texture.

## Application Guide

### Surface Preparation

All surfaces should be degreased and pre-treated for optimal performance. Suitable pre-treatment includes:

Aluminium	Yellow chromate or green chromate/phosphate	(refer AS3715-2002 and/or BS6496)
Ferrous metals	Zinc or Iron phosphate	(refer BS6497 and/or AS/NZ4506)
Zinc Coated Steels	Zinc or Iron phosphate	(refer AS/NZ4506)

### Application Procedure and Equipment

- 1a) For fluidised bed, ensure uniform fluidisation of powder. Fluidised powder should resemble “simmering liquid”. Aged or compacted powder may require pre-conditioning for several minutes to fluidise evenly.
- 1b) For box feeders, ensure probe is fully inserted in powder and operated as per manufacturer’s recommendations.
2. Apply by electrostatic spray.
3. Cure as per recommendations outlined above.  
Care should be taken when stoving at 220°C or above as some colours are prone to discolouration.
4. Test for cure of the coating by contact with a drop of Methyl ethyl ketone for 100 double rubs. Surface should be immediately wiped dry, only slight surface softening should occur.

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### Care and Maintenance

Solvent recommended for the removal of graffiti is Graffiti Eraser. Please contact OCPC for details.

Apply the solvent with a soft rag, allow the solvent to moisten the graffiti marks (approximately 30 seconds), before wiping the surface clean.

As a general rule, cleaning of externally located powder coating surfaces must take place every six months. Where salts/pollutants are more prevalent such as seaside and industrial areas, a cleaning program should be carried out more frequently.

#### THREE STEPS TO CLEANING POWDER COATED SURFACES

1. Remove loose deposits with a wet sponge (avoid scratching the surface by dry dusting).
2. Using a soft clean cloth and a mild detergent in warm water, clean the powder coating to remove dust, salt or other deposits.
3. Always rinse after cleaning with fresh water to remove any remaining detergent.

**WARNING:** In some cases, strong solvents recommended for thinning various types of paints and also for cleaning up mastics/sealants are harmful to the extended life of the powder coated surface. These solvents should not be used for cleaning purposes. If paint splashes or sealants/mastics need to be removed then the following solvents can be used safely: Methylated Spirits, White Spirits, Ethyl Alcohol, Isopropanol.

### Health and Safety

The MSDS is an integral part of using this product as it contains information on the potential health effect of exposure, personal protective equipment needed and other relevant SH&E information.

For detailed information, refer to product label and the current Chemical Data Sheet available through Sales and Customer Service Offices.

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### Precautions and Limitations

- Some strong, bold colours may not meet performance criteria for weathering (colour change), refer to DGL Camel Powder Coatings before specifying.
- As a result of possible wide application variations and stoving conditions, some products and colours may show variation between DGL Camel Powder Coatings prepared samples and production applied material. Therefore, it is the applicator and/or their customer's responsibility to ensure the product conforms to their requirements.
- For optimum corrosion performance ensure recommended dry film thickness is obtained.
- Not recommended for use in highly corrosive environments such as severe marine or industrial locations.
- Not recommended for components which are exposed to constant temperatures exceeding 120°C.
- Anti Graffiti is not recommended for post-forming.
- This product can release an irritating white fume on baking, which is particularly noticeable if there is inadequate ventilation. Ensure adequate ventilation/extraction is available when baking this product to minimise fuming.

### Transport and Storage

<b>Sizes:</b>	20 kg	<b>Flashpoint:</b>	N/A
<b>Weight:</b>	20 kg	<b>UN:</b>	N/A
<b>Dangerous Goods Class:</b>	N/A	<b>Package Group:</b>	N/A
<b>Shipment Name:</b>	Not dangerous goods. No special transport requirements.		



## HEAT TRANSFER COATING

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