

Clear Polyester Powder Coating			
Product Code:		904 line	
Description			
Crystal™ is a pure polyester powder coating formulated to show outstanding flow and clarity whilst retaining the performance properties expected of polyester powder coatings. It has been developed to show a very rapid cure response.			
Features		Benefits	
Film integrity	Long intact life of coating		
Tough polyester	Hard wearing/serviceable finish		
No solvents or emissions	Less waste and pollution to the environment		
Fast cure	Reduced out gassing in diecasts and heat deformation to substrates		
Excellent clarity	Minimal colour change to polished aluminium and/or initial coat		
Excellent flow	Appearance of ‘wet look’ similar to wet paint clears and acrylics		
Uses			
Crystal™ was originally developed for the alloy road wheel industry, where the lower temperature curing offers significant benefits. Since the introduction it has also found significant use in the protection and decoration of polished and plated metals along with top coats for powder metallic finishes.			
Performance Guide			
Weather	Good resistance to weathering. Suitable for outdoor applications.	Salt Spray	Good. < 3mm adhesion loss at scribe after 250hours salt spray on pre-treated steel, 1000 hours on pre-treated aluminium.
Heat	Excellent resistance to 120°C continuous service conditions	Humidity	Good resistance to 38°C/100% humidity for 1000 hours on pre-treated aluminium.
Acid	Resistant to spills of dilute acid. Avoid contact.	Abrasion	Very good resistance to abrasion
Alkali	Resistant to spills of dilute alkali. Avoid contact.	Pencil Hardness	Min H
Flexibility	Pass 160 inch/lb	Cross Hatch Adhesion	No removal
Chemical Resistance			
Mortar	Resistant	White Spirits	Resistant
Ethanol	Resistant	Xylene	Slight softening/limit contact
Methyl Ethyl Ketone	Softens/avoid contact	Ethyl Acetate	Softens/avoid contact

Crystal Clear™

Product Guide

Colour	Clear	Specific gravity	1.2 - 1.3
Gloss Level	20-95% depending on product	Shelf life	12 months when stored below 25°C/dry conditions

Application Data

Application Method	Electrostatic spray.		
Clean Up	Dust or vacuum loose powder. Avoid use of compressed air.		
Cure Schedule	Metal Temperature (°C)	Time (minutes)	
904 Gloss	180	10	
904 Matt	200	10	
Cured Film Thickness	Recommended:	55 µm	
	Range:	40 – 100 µm	

Application Guide

Surface Preparation

To ensure optimum performance of Crystal™, the substrate must be completely clean and free from corrosion products, greases and polishing, plating or machinery residues. Suitable pre treatments include:-

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)

In many applications for Crystal™ the aesthetic demands of the finished product preclude the use of such conversion coatings. In such instances it must be accepted that the corrosion resistance may be significantly reduced.

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.
4.	Test for cure of the coating by contact with a drop of Corsol PGMA (available from Dulux Powder Coatings) for 30 seconds. Surface should be wiped dry and immediately checked for softening. Only slight surface softening should occur.

Care and Maintenance

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.

Crystal Clear™

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, 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 (No. 13542424) available through Sales and Customer Service Offices.

Phone: Australia:-	13 24 99	New Zealand:-	09 441 8244.
--------------------	----------	---------------	--------------

Precautions and Limitations

- As a result of possible wide application variations and stoving conditions, Crystal™ may show variation between Dulux 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.

Transport and Storage

Sizes:	15 kg	Flashpoint:	N/A
Weight:	15 kg	UN:	N/A
Dangerous Goods Class:	N/A	Package Group:	N/A
Shipment Name:	Not dangerous goods. No special transport requirements.		
	Dulux Powder Coatings	Dulux Powder Coatings	
	1-15 Pound Road	31B Hillside Road	
	Dandenong South, VIC 3175	Glenfield, Auckland 0627	
	Australia	New Zealand	
	ACN 004 117 828		
Telephone:	61 3 8787 4500	64 9 441 8244	
Fax:	61 3 8787 4542	64 9 441 8242	

Dulux and Other marks followed by ® are registered trademarks. Marks followed by the symbol ™ are trademarks.

DISCLAIMER: Any advice, recommendation, information, assistance or service provided by Dulux Powder Coatings in relation to goods manufactured by it or their use and application is given in good faith and is believed by Dulux Powder Coatings to be appropriate and reliable. However, any advice, recommendation, information, assistance or service provided by Dulux Powder Coatings provided without liability or responsibility PROVIDED THAT the foregoing shall not exclude, limit, restrict or modify the right entitlements and remedies conferred upon any person or the liabilities imposed upon Dulux Powder Coatings by any condition or warranty implied by applicable legislation, regulation or other Government ordinance voiding or prohibiting such exclusion, limitation or modification