

HI TEMP[™] 600

Silicone Based High Temperature Coating

PC 930

- FEATURES**
- SUITABLE FOR BOTH INTERIOR AND EXTERIOR
 - WITHSTANDS CONTINUOUS TEMPERATURES TO 500°C
 - MAY BE AMBIENT CURED USING CATALYST
 - EXCELLENT HEAT QUENCH RESISTANCE

USES Typical applications include the exteriors of furnace equipment, reaction vessels, boiler fronts, hot metal stacks, kilns, flues, exhaust systems and chimneys.
HI TEMP[™] Catalyst is available which facilitates air drying in the event that delays occur before heat curing.

SPECIFICATIONS

RESISTANCE GUIDE

HEAT RESISTANCE	Up to 500°C dry heat (Continuous). Short term overloads to 600°C.	ALKALIS	Excellent resistance to mild industrial alkali fumes.
WEATHERABILITY	Excellent resistance to weather degradation.	SALTS	Unaffected by splash and spillage of neutral salt solutions.
SOLVENTS	Good. Fumes only.	WATER	Resists rain and condensation. Not recommended for permanently damp or immersed exposure.
ACIDS	Excellent resistance to mild industrial acid fumes.	ABRASION	Good adhesion resistance when exposed to normal weathering.

TYPICAL PROPERTIES AND APPLICATION DATA

CLASSIFICATION	Silicone high temperature coating	APPLICATION CONDITIONS	Min	Max	
FINISH	Semi gloss	Air Temperature	10°C	45°C	
COLOUR	Aluminium	Substrate Surface Temperature	10°C	45°C	
		Relative Humidity		85%	
COMPONENTS	One		Min	Max	Recom.
SOLIDS BY VOLUME	28%	Wet film per coat (microns)	55	90	75
VOC LEVEL	<610 g/L	Dry film per coat (microns)	15	25	20
FLASH POINT	4°C				
POT LIFE	24 Hours if catalyst is used	SUITABLE SUBSTRATES	Suitably primed steel.		
MIXING RATIO (V/V)	Single pack	PRIMERS	HI TEMP [™] UNIPRIME or ZINCANODE [®] 304		
THINNER	965-63020 Dulux [®] CR Reducer	APPLICATION METHODS	Brush, roller, conventional, airless spray or air assisted spray.		
PRODUCT CODE	950-16188				

Drying characteristics at 20 microns dry film thickness

Temperature	Humidity	Touch	Handle	Full Cure*	Overcoat	
					Min	Max*
25° C	50%	4 Hours	24 Hours	On Heating	24 Hours	Until Heated
With Catalyst 25° C	50%	4 Hours	12 Hours	On Heating	12 Hours	Until Heated

These figures are given as a guide only, as ventilation, film thickness, humidity, thinning and other factors will influence the rate of drying.

If the maximum overcoat interval is exceeded then the surface MUST be abraded to ensure maximum intercoat adhesion.

* Product does not fully harden until the surface is heated to 250°C to 500°C for 2 hours.

TYPICAL SPREADING RATE AT RECOMMENDED DRY FILM BUILD

A spreading rate of 14.0 sq. metres per litre corresponds to 20 microns dry film thickness assuming no losses.
Practical spreading rates will vary depending on such factors as method and conditions of application and surface roughness.

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TYPICAL SYSTEMS

(The typical systems are offered as a guide only and are not to be used as a specification. It is recommended that the specific needs of a project be discussed with a Dulux Protective Coatings Consultant.)

SURFACE	PREPARATION GUIDE	SYSTEM	DRY FILM THICKNESS
STEEL	Abrasive blast AS1627.4 Class 2	150°C – 550°C 1st Coat HI TEMP™ UNIPRIME 2nd Coat HI TEMP™ 600 3rd Coat HI TEMP™ 600 (Optional)	25 Microns 20 Microns 20 Microns
	Abrasive blast AS1627.4 Class 2.5	Service up to 400°C 1st Coat ZINCANODE® 304 2nd Coat HI TEMP™ 600 3rd Coat HI TEMP™ 600 (Optional)	75 Microns 20 Microns 20 Microns

SURFACE PREPARATION It is recommended that specifiers follow the guidelines for surface preparation from the data sheet for the primer selected. The primer surface must be free from grease, oil, dirt and other loosely adhering materials.

APPLICATION Stir each can thoroughly until the contents are uniform. Use of a power mixer is recommended. Remix thoroughly before using. If the surface is to be handled before heating, mix in HI TEMP™ catalyst at 190 grams per 4 litre. This will minimise damage to the coating.

BRUSH/ROLLER Apply even coats of the mixed material to the prepared surface. When brushing and rolling additional coats may be required to attain the specified thickness.

CONVENTIONAL SPRAY Thin up to 50ml/litre with Dulux® CR Reducer (965-63020) to aid atomisation. Apply in multiple wet coats overlapping each pass 50%.

Typical Set-up

Graco Delta Gun: 1.4mm (239542)
Pressure at Pot: 70-100 kPa (10-15 p.s.i.)
Pressure at Gun: 380-410 kPa (55-60 p.s.i.)

AIRLESS SPRAY Standard airless spray equipment such as a Graco 30:1 President with a fluid tip of 13 thou (0.33mm) and an air supply capable of delivering 550-690 kPa (80-100 p.s.i.) at the pump. Thinning is not normally required but up to 50 ml/litre of Dulux® CR Reducer (965-63020) may be added to ease application.

PRECAUTIONS This is an industrial product designed for use by experienced Protective Coating applicators. Where conditions may require variation from the recommendations on this Product Data Sheet contact your nearest Dulux® representative for advice prior to painting. Do not apply in conditions outside the parameters stated in this document without the express written consent of Dulux® Australia. Do not apply at temperatures below 10°C. Do not apply at relative humidity above 85% or when the surface is less than 3°C above the dewpoint.

Allow at least 2 hours drying before heating up. After this initial drying period increase temperatures gradually until 150°C is reached. The coating does not fully harden until the surface is heated to 250°C to 500°C for at least 2 hours. Film thicknesses are critical to sound performance; over-thick films will cause blistering on heat-up.

Where frequent shut down of plant occurs in aggressive industrial or marine environments, maximum corrosion resistance will be given by priming with ZINCANODE® 304 provided that the operating temperatures are below 400°C.

It is recommended that when recoating HI TEMP™ 600 the second coat be applied by spray to avoid pick-up of the first coat.

Not suitable for use under insulation where moisture is present.

CLEAN UP Clean all equipment with Dulux® CR reducer (965-63020) immediately after use.

OVERCOATING Do not overcoat with itself once the coating has been heat cured. Rust, millscale, oxide deposits and old paint films on metal surfaces must be removed by abrasive blast cleaning to AS1627.4 Class 2.5.

SAFETY PRECAUTIONS **Read Data Sheet, Material Safety Data Sheet and any precautionary labels on containers.**

STORAGE Store as required for a flammable liquid Class 3 in a bunded area under cover. Store in well-ventilated area away from sources of heat or ignition. Keep containers closed at all times.

HANDLING As with any chemical, ingestion, inhalation and prolonged or repeated skin contact should be avoided by good occupational work practice. Eye protection approved to AS1337 should be worn where there is a risk of splashes entering the eyes. Always wash hands before smoking, eating, drinking or using the toilet.

USING Use with good ventilation and avoid inhalation of spray mists and fumes. If risk of inhalation of spray mists exists, wear combined organic vapour/particulate respirator. When spray painting, users should comply with the provisions of the respective State Spray Painting Regulations.

FLAMMABILITY This product is flammable. All sources of ignition must be eliminated in, or near the working area. DO NOT SMOKE. Fight fire with foam, CO₂ or dry chemical powder. On burning will emit toxic fumes.

WELDING Avoid inhalation of fumes if welding surfaces coated with this paint. Grind off coating before welding.

MATERIAL SAFETY DATA SHEET is available from Customer Service (132377) or www.duluxprotectivecoatings.com.au

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PACKAGING Available in 4 litre containers
TRANSPORTATION WEIGHT 1.18 kg/litre
DANGEROUS GOODS Class 3 UN 1263

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