

HI TEMP™ 600

Silicone Based High Temperature Coating

PC 930

- FEATURES**
- RESISTS TEMPERATURE SPIKES TO 600°C
 - SUITABLE FOR CONTINUOUS OPERATING TEMPERATURES TO 500°C
 - SINGLE PACK
 - MAY BE CURED IN AMBIENT TEMPERATURES USING CATALYST
 - EXCELLENT HEAT QUENCH RESISTANCE
 - SUITABLE FOR INTERIOR AND EXTERIOR

USES HI TEMP™ 600 is recommended for continuous service temperatures to 500°C. Typical applications include the exteriors of furnace equipment, reaction vessels, boiler fronts, hot metal stacks, kilns, flues, exhaust systems and chimneys.

Where heat curing may be impractical, HI TEMP™ Catalyst may be used to cure HI TEMP™ 600 at ambient temperature.

SPECIFICATIONS

RESISTANCE GUIDE

WEATHERABILITY	Excellent	SOLVENTS	Good resistance to solvent fumes only
HEAT RESISTANCE	Up to 500°C dry heat (continuous) Short bursts of heat to 600°C	WATER	Resists rain and condensation. Not recommended for permanently damp or immersed exposure
SALTS	Unaffected by splash and spillage of neutral salt solutions	ALKALIS	Excellent resistance to mild alkali fumes
ACIDS	Excellent resistance to mild acid fumes	ABRASION	Good when fully cured

TYPICAL PROPERTIES AND APPLICATION DATA

CLASSIFICATION	Silicone high temperature coating	APPLICATION CONDITIONS			
FINISH	Semi gloss		Min	Max	
COLOUR	Aluminium	Air Temp.	10°C	45°C	
		Substrate Temp.	10°C	45°C	
		Relative Humidity		85%	
COMPONENTS	One	COATING THICKNESS (MICRONS)			
VOLUME SOLIDS	28%		Min	Max	Recommended
VOC LEVEL	<610 g/L	Wet film per coat (µm)	55	90	75
FLASH POINT	4°C	Dry film per coat (µm)	15	25	20
POT LIFE	24 Hours if catalyst is used	SUITABLE SUBSTRATES	Abrasive blast cleaned and primed steel		
MIXING RATIO	Single Pack (if cured at 250°C – 500°C for 2 hours)	PRIMERS	Hi Temp™ Uniprime or Durezinc® i90		
WITH CATALYST	Hi Temp™ Catalyst : Hi Temp™ 600 190 g : 4 litre	TOPCOATS	Not applicable		
THINNER	965-63020 Dulux® CR Reducer	APPLICATION METHODS	Brush, roller, conventional, airless spray or air assisted spray		
PRODUCT CODE	950-16188 Aluminium + Hi Temp™ Catalyst				

DRYING CHARACTERISTICS AT 20 µm DRY FILM THICKNESS*

Temperature	Humidity	Touch	Handle	Full Cure ¹	OVERCOAT	
					Min	Max ²
25° C	50%	4 Hours	24 Hours	On Heating	24 Hours	Until Heated

WITH HI TEMP™ CATALYST*

Temperature	Humidity	Touch	Handle	Full Cure ¹	OVERCOAT	
					Min	Max ²
25° C	50%	4 Hours	12 Hours	On Heating	12 Hours	Until Heated

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

¹ Product does not fully harden and develop full protective properties until the surface is heated to 250°C – 500°C for 2 hours

² If the maximum overcoat interval is exceeded then the surface MUST be abraded to ensure maximum intercoat adhesion.

SPREADING RATE 14.0 square metres per litre equals 20 µm dry film thickness

ASSUMING NO LOSSES

NOTE: Practical spreading rates will vary depending on such factors as application method, ambient conditions, surface porosity and roughness.

HI TEMP™ 600

TYPICAL SYSTEMS

This is a guide only and not to be used as a specification. Your specific project needs must be discussed with a Dulux® Protective Coatings Consultant.

SURFACE	ENVIRONMENT	PREPARATION GUIDE	SYSTEM	DFT (µm)
STEEL – NEW	150°C – 400°C	Abrasive blast clean AS1627.4 Class 2.5	1 st Coat Durezinc™ i90 2 nd Coat Hi Temp™ 600 3 rd Coat Hi Temp™ 600	75 µm 20 µm 20 µm
STEEL – NEW	150°C – 550°C	Abrasive blast clean AS1627.4 Class 2.0	1 st Coat Hi Temp™ Uniprime 2 nd Coat Hi Temp™ 600 3 rd Coat Hi Temp™ 600	25 µm 20 µm 20 µm

NOTE: If application is by brush or roller, additional coats will be necessary to achieve the minimum DFT

SURFACE PREPARATION	Steel: Round off all rough welds, sharp edges and remove weld spatter. Remove grease, oil and other contaminants in accordance with AS1627.1. Degrease with Gamlen CA No. 1 (a free-rinsing, alkaline detergent) according to the manufacturer's written instructions and all safety warnings. Abrasive blast clean to a minimum of AS1627.4 Class 2.5 or 2.0 when using Hi Temp™ Uniprime.
APPLICATION	Mix thoroughly until the contents are uniform. Remix thoroughly before application. If the surface is to be handled before heating, mix in Hi TEMP™ catalyst at 190 grams per 4 litre. This will increase coating hardness and improve resistance to handling damage.
BRUSH/ROLLER	Brushing is the preferred method of application of the first coat. 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 100ml/litre with Dulux® CR Reducer (965-63020) to aid atomisation. Apply in multiple wet coats overlapping each pass 50%. Typical Set-up Graco AirPro Pressure at Triton 308: 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 Xtreme 30:1 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 aid 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 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 temperature 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. In aggressive industrial or marine environments where operating temperatures are generally below 400°C and frequent shut down of plant occurs, maximum corrosion resistance will be given by priming the steel with DUREZINC® i90. 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, mill scale, 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, SAFETY DATA SHEET and any precautions on container labels. SAFETY DATA SHEET is available from Customer Service (13 23 77) or www.duluxprotectivecoatings.com.au
STORAGE	Store as required for a flammable liquid Class 3 in a bonded 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 spraying, users must comply with their 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, CO ₂ 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.

COMPANY INFORMATION

Dulux Protective Coatings a division of

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PACKAGING, TRANSPORT AND STORAGE

PACKAGING	Available in 4 litre containers with 180 g Hi Temp™ Catalyst
TRANSPORTATION WEIGHT	1.18 kg/litre
DANGEROUS GOODS	Class 3 UN 1263

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