

HI TEMP[™] 400

Silicone Based High Temperature Coating

PC 929

- FEATURES**
- SUIT OPERATING TEMPERATURES TO 435°C
 - SINGLE PACK PRODUCT
 - SELF PRIMING TOPCOAT
 - SUITABLE FOR BOTH INTERIOR AND EXTERIOR

USES HI TEMP[™] 400 is recommended for service temperatures to 435°C. Typical applications include furnace equipment, reaction vessels, boiler fronts, hot metal stacks, kilns, flues and exhaust systems.
Prior to application of HI TEMP[™] 400 to a surface operating above 205°C it is essential that the surface be prepared to recommended abrasive blast clean standards.

SPECIFICATIONS

RESISTANCE GUIDE

<p>HEAT RESISTANCE 100 to 435°C dry heat.</p> <p>WEATHERABILITY Good resistance to degradation by weather.</p> <p>SOLVENTS Good. Fumes only.</p> <p>ACIDS Excellent resistance to mild industrial fumes.</p>	<p>ALKALIS Excellent resistance to mild alkaline conditions.</p> <p>SALTS Unaffected by splash and spillage of neutral salt solutions.</p> <p>WATER Resists rain and condensation. Not recommended for permanently damp or immersed exposure.</p> <p>ABRASION Good adhesion resistance when exposed to normal weathering.</p>
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TYPICAL PROPERTIES AND APPLICATION DATA

<p>CLASSIFICATION Silicone high temperature coating</p> <p>FINISH Flat</p> <p>COLOUR Black and Aluminium</p> <p>COMPONENTS One</p> <p>SOLIDS BY VOLUME 13% (Black), 15% (Aluminium)</p> <p>VOC LEVEL <750 g/L (Black)</p> <p>FLASH POINT 24°C</p> <p>POT LIFE Not applicable</p> <p>MIXING RATIO (V/V) Single Pack</p> <p>THINNER 965-63020 Dulux[®] CR Reducer</p> <p>PRODUCT CODE 950-89786 Black 950-89787 Aluminium</p>	<p>APPLICATION CONDITIONS</p> <table border="0"> <tr> <td></td> <td>Min</td> <td>Max</td> </tr> <tr> <td>Air Temperature</td> <td>10°C</td> <td>45°C</td> </tr> <tr> <td>Substrate Surface Temperature</td> <td>10°C</td> <td>45°C</td> </tr> <tr> <td>Relative Humidity</td> <td></td> <td>85%</td> </tr> </table> <table border="0"> <tr> <td></td> <td>Min</td> <td>Max</td> <td>Recom.</td> </tr> <tr> <td>Wet film per coat (microns)</td> <td>70</td> <td>200</td> <td>135</td> </tr> <tr> <td>Dry film per coat (microns)</td> <td>10</td> <td>30</td> <td>20</td> </tr> </table> <p>SUITABLE SUBSTRATES Abrasive blast cleaned steel.</p> <p>PRIMERS Self priming, HI TEMP[™] UNIPRIME or ZINCANODE[®] 304</p> <p>APPLICATION METHODS Brush, roller, conventional, airless spray or air assisted spray.</p>		Min	Max	Air Temperature	10°C	45°C	Substrate Surface Temperature	10°C	45°C	Relative Humidity		85%		Min	Max	Recom.	Wet film per coat (microns)	70	200	135	Dry film per coat (microns)	10	30	20
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Drying characteristics at 20 microns dry film thickness

Temperature	Humidity	Touch	Handle	Full Cure*	Overcoat	
					Min	Max*
25° C	50%	2 Hours	24 Hours	On Heating	6 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 and develop full protective properties until the surface is heated to 150°C to 200°C for 1 hour.

TYPICAL SPREADING RATE AT RECOMMENDED DRY FILM BUILD

A spreading rate of 7.5 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.

HI TEMP™ 400

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 2.5	1st Coat	150°C – 435°C HI TEMP™ 400	20 Microns
		2nd Coat	HI TEMP™ 400	20 Microns
	Abrasive blast AS1627.4 Class 2	1st Coat	150°C – 435°C HI TEMP™ UNIPRIME	25 Microns
		2nd Coat	HI TEMP™ 400	20 Microns
		3rd Coat	HI TEMP™ 400 (Optional)	20 Microns
	Abrasive blast AS1627.4 Class 2.5	1st Coat	150°C – 400°C ZINCANODE® 304	75 Microns
		2nd Coat	HI TEMP™ 400	20 Microns
		3rd Coat	HI TEMP™ 400 (Optional)	20 Microns

SURFACE PREPARATION Round off all rough welds, sharp edges and remove weld spatter. Remove grease, oil and other contaminants in accordance with AS1627.1. Rust, millscale, oxide deposits and old paint films on metal surfaces must be removed by abrasive blast cleaning to AS1627.4 Class 2.5. Remove all dust by brushing or vacuum cleaning.
When using one of the recommended primers refer to the Product Data Sheet for that primer for the surface preparation instructions.

APPLICATION Stir each can thoroughly until the contents are uniform. Use of a power mixer is recommended. Remix thoroughly before using.

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 Delta Gun: 1.4mm (239542)
Pressure at Pot: 70-100 kPa (10-15 p.s.i.)
Pressure at Gun: 340-410 kPa (50-60 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 8 hours drying of the final coat before heating up. After this initial drying period increase temperatures gradually until 150°C is reached. The coating does not fully harden and develop full protective properties until the surface is heated to 150°C to 200°C for at least 1 hour.

Where frequent shut down of plant occurs in aggressive industrial or marine environments, maximum corrosion resistance will be given by priming with ZINCANODE® 304.

Film thicknesses are critical to sound performance; over-thick films will cause blistering on heat-up. Care should be taken when overcoating to avoid pick-up of the first coat. For this reason second coat work is best applied by spray.

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 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 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	1.03 kg/litre
DANGEROUS GOODS	Class 3 UN 1263

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