HI TEMP™ 400

Silicone Based High Temperature Coating — PC 929

FEATURES
- SUITABLE FOR OPERATING TEMPERATURES UP TO 435°C
- SINGLE PACK
- SELF PRIMING TOPCOAT
- SUITABLE FOR INTERIOR AND EXTERIOR

USES HI TEMP™ 400 is recommended for operating temperatures to 435°C. Typical applications include furnace equipment, reaction vessels, boiler fronts, hot metal stacks, kilns, flues and exhaust systems.

Prior to the application of HI TEMP™ 400 to a surface that will be operating in temperatures above 205°C, the surface must be prepared to recommended abrasive blast clean standards.

SPECIFICATIONS

RESISTANCE GUIDE

WEATHERABILITY	Good	SOLVENTS	Good resistance to solvent fumes only
HEAT RESISTANCE	100°C to 435°C dry heat	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 industrial alkali fumes
ACIDS	Excellent resistance to mild industrial acid fumes	ABRASION	Good when fully cured

TYPICAL PROPERTIES AND APPLICATION DATA

CLASSIFICATION	Silicone high temperature coating
FINISH	Flat
COLOUR	Black and Aluminium
COMPONENTS	One
VOLUME SOLIDS	13% (Black), 15% (Aluminium)
VOC LEVEL	<750 g/L (Black)
FLASH POINT	27°C
POT LIFE	Not applicable
MIXING RATIO V/V	Single Pack
THINNER	965-63020 Dulux® CR Reducer
PRODUCT CODE	950-89786 Black 950-89787 Aluminium

APPLICATION CONDITIONS

	Min	Max
Air Temp.	10°C	40°C
Substrate Temp.	10°C	40°C
Relative Humidity		85%

COATING THICKNESS (MICRONS)

	Min	Max	Recommended
Wet film per coat (µm)	70	200	135
Dry film per coat (µm)	10	30	20

SUITABLE SUBSTRATES	Abrasive blast cleaned steel
PRIMERS	Self priming, Hi Temp™ Uniprime, or Durezinc® i90
TOPCOATS	Not applicable
APPLICATION METHODS	Brush, roller, conventional, airless spray or air assisted spray

DRYING CHARACTERISTICS AT 20 µm DRY FILM THICKNESS*

					OVERCOAT	
Temperature	Humidity	Touch	Handle	Full Cure[1]	Min	Max[2]
25° C	50%	2 Hours	24 Hours	On Heating	6 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 150°C to 200°C for 1 hour.

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

SPREADING RATE ASSUMING NO LOSSES

7.5 square metres per litre equals 20 µm dry film thickness

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

HI TEMP™ 400

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	1st Coat 2nd Coat 3rd Coat	Durezinc™ i90 Hi Temp™ 400 Hi Temp™ 400	75 µm 20 µm 20 µm
STEEL – NEW	150°C – 435°C	Abrasive blast clean AS1627.4 Class 2.5	1st Coat 2nd Coat	Hi Temp™ 400 Hi Temp™ 400	20 µm 20 µm
STEEL – NEW	150°C – 435°C	Abrasive blast clean AS1627.4 Class 2.0	1st Coat 2nd Coat 3rd Coat	Hi Temp™ Uniprime Hi Temp™ 400 Hi Temp™ 400	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

Specifiers should follow the surface preparation guidelines from the data sheet for the primer or first coat selected. **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 1 (a free-rinsing, alkaline detergent) according to the manufacturer's data sheet. Abrasive blast clean to a minimum of AS1627.4 Class 2.5. **Steel where abrasive blast cleaning is not viable**: Rust, mill scale, oxide deposits and old paint films on metal surfaces must be removed by power tool cleaning according to AS1627.2 Class 2.

APPLICATION

Mix each can thoroughly using a power mixer until the contents are uniform. Remix thoroughly before application.

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	1.4mm (239542)
	Pressure at Triton 308:	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 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 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 DUREZINC® i90.

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 the second coat 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, 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 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 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

DuluxGroup (Australia) Pty Ltd
1956 Dandenong Road, Clayton 3168
A.B.N. 67 000 049 427

DuluxGroup (New Zealand) Pty Ltd
150 Hutt Park Road, Lower Hutt, NZ
A.B.N. 55 133 404 118

PACKAGING, TRANSPORT AND STORAGE

PACKAGING	Available in 4 litre containers
TRANSPORTATION WEIGHT	1.03 kg/litre
DANGEROUS GOODS	Class 3 UN 1263