

DESCRIPTION

HEATSHIELD 400 is a self priming, heat and corrosion resistant protective coating based on a silicon copolymer resin incorporating highly effective corrosion inhibiting pigments. It is formulated to withstand temperatures up to 260°C and may be applied on the run from ambient to 260°C. Designed for exterior use, it is available in a range of standard and custom colours.

PRICIPAL CHARACTERISTICS

- * Self Priming
- * Single Pack
- * Excellent corrosion, chemical and weather resistance.
- * Apply directly to hot steel up to 260°C
- * Very good colour stability up to 260°C
- * VOC Compliant (381 gm/litre)

PRACTICAL USES

- Boilers and Stacks
- Process Plant & Equipment
- Heat exchangers, Compressors & Turbines
- Piping, Pumps & Manifolds

SURFACE PREPARATION

The surface must be clean and dry.
Sweep blast or grit blast to Sa2 (30-50µ profile)

HEALTH & SAFETY

- Please read instructions on container
- Please read Material Safety Data Sheet
- Avoid skin contact, do not inhale vapours
- SKIN: Wash well with soap and water
- EYES: Flush with water and immediately seek medical attention

APPLICATION TECHNIQUES

- Spray perpendicular to hot surfaces
- Spray thinner than normal coats with each pass of the spray gun.
- Do not use spray tips larger than 0.8mm when spraying onto hot surfaces

PROCEDURES FOR APPLICATION TO HOT SURFACES

1. All hot applications must be sprayed only
2. Flush equipment well with Denso X2 thinners only
3. If thinning is necessary only use Denso Type X2 thinners
4. Use a maximum of 5% Denso X2 thinners to avoid runs
5. For conventional spray ensure proper atomization
6. Spray nozzles should be earthed to avoid static build up.
7. **Warning: Do not use other thinners to avoid creating a fire hazard.**

*Practical Spread Rates

The above practical spread rates only allow for nominal wastage which occurs during application of the products. The appropriate wastage allowance must be made by the applicator depending on the site circumstances (e.g. Method of application, overspray, etc.). Denso SA cannot be held responsible for any excess usage by the applicator for whatsoever reason.

HEATSHIELD 400	HIGH TEMP. COATING
Type	Silicon Copolymer Resin
Number of Components	One
Colours	See Colour Chart
Flash Point	37°C
Application Method	Hot Steel – Airless or conventional Spray Cold Steel – Brush, roller or spray
Volume Solids	60%
Coverage (Theoretical)	10 – 12 m ² /litre/coat
Wet Film Thickness	85 - 100µ/coat
Dry Film Thickness	50 - 60µ/coat
Operating Temperature Range	-40 to +260°C
Application Temperature Range	+40 to + 260°C
Cleaning Solvent	X2 Thinners
Overcoating Times	Depends on surface temperature (See chart below)
Storage Temp. Limits	10°C - 40°C
Shelf Life	6 months

<u>SURFACE TEMP</u>	<u>OVERCOATING TIMES</u>
25°C	8 – 24 hrs
50°C	2 – 6hrs
100°C	30 – 60 minutes
200°C	10 – 20 minutes

<u>SPRAYING DETAILS</u>		
<u>APPLICATION</u>	<u>AIRLESS</u>	<u>CONVENTIONAL</u>
Nozzle Pressure	15 Mpa (2100psi)	40 – 45 psi
Tip Size	0.33 - 0.46mm	0.8 – 0.9mm
Spray Angle	40 – 80°	40 - 80°

OTHER FACTORS TO TAKE INTO CONSIDERATION

The procedures for applying protective coatings to hot surfaces is different to those normally used when applying protective coatings at ambient temperatures.

- Avoid dry spray by holding the nozzle perpendicular to the hot surface.
- Perpendicular spraying will minimize overspray.
- Apply thinner coats than usual with each pass of the spray gun. This will allow evaporation of the solvents without causing heat generated blisters or pin holes.
- For temperatures above 150°C reduce the nozzle size to 0.8mm – 0.9mm (0.32" to 0.36")

DRYING TIMES

At ambient temperatures Heatshield 400 will be tack free in 4-6hrs. Allow 8-10hrs between coats.

At higher temperatures the tack free time will be reduced.

For the coating to fully cure it requires a minimum of 30 minutes at 160°C or slightly longer at lower temperatures