

IriTherm400™

General Description

This product is an aluminum finish based on silicone resins. IriTherm400™ is suitable for installations where heat resistance up to 400°C continuously and up to 500 °C intermittently is required. It is recommended to directly apply IriTherm400™ on the steel for maximum performance. The product can be applied on IriSil™ if better resistance against corrosion desired.

Product Technical Information

- Solids by volume 35 ±1 %
- Density 1.10 ±0.05 Kg /Lit
- Flashpoint >25°C
- Colors/Finish Silver/Gloss
- Mixing ratio Single pack
- Suitable Thinner/Cleaner IriThin55

Drying & Recoating Times

Temperature	To touch	To recoat		Hard dry *
		Minimum	Maximum	
@ 10°C	3 hours	48 hours	Indefinite	See note
@ 23°C	2 hours	36 hours	Indefinite	
@ 30°C	1 hour	24 hours	Indefinite	
@ 40°C	0.5 hour	20 hours	Indefinite	

*The product cures by a gradual rise in temperature. The following curing schedule is recommended.

- 30 minutes gradual rise to 100°C.
- 1 hour gradual rise to 200°C.
- 2 hours gradual rise to 450°C.

IriTherm400™ can be used directly on blast-cleaned steel. After exposure to heat, the gloss is reduced. Do not expose the paint system to heat before it is thoroughly dry (minimum 24 hours at to heat: 23°C). For maximum corrosion protection, IriTherm400™ can be applied on (IriSil™) zinc silicate coatings. Popping may occur after application or after first heating up. The best way to avoid popping is to apply a mist coat (a thin coat) in the first pass of IriTherm400™. Let the air escape and apply the full coat of IriTherm400™.

When in doubt, consult your nearest **Darya Tamin** office.

Application

- **Suitable methods**

Air Spray	Airless Spray	Brush/Roller
<ul style="list-style-type: none"> • Nozzle pressure: 3-4 bar • Nozzle size: 1.2-1.5 mm • The volume of thinner: 0-5% 	<ul style="list-style-type: none"> • Nozzle pressure: 120-150 bar • Nozzle size: 0.22-0.38 mm • Spray angle: 40-80 degrees • The volume of thinner: 0-3 % 	<ul style="list-style-type: none"> • Suitable. • The volume of thinner: 0-5 %

- **Recommended thickness**

	Dry film thickness(μm)	Wet film thickness(μm)	Theoretical spreading rate (m ² /l)
Acceptable range	25-35	70-100	10.0-14.0
Recommended	30	85	11.7

Surface Preparation

Surfaces should be free of oil, grease, salt or other contaminants. Remove all wax, silicone, powdery or scaling rust and then clean the surface by fresh water washing.

Steel: Remove weld spatter and smooth weld seams and sharp edges as applicable. Abrasive blasting: min. Sa 2½ – ISO 8501:1. Apply IriTherm400™ after the steel has been blasted and the quality of preparation has been approved. If primer is required, only zinc silicate type (IriSil™) is recommended.

Repair: Prepare damaged areas to original surface preparation, feathering edges of the intact coating. Thoroughly remove dust or abrasive residue before touch-up.

Application Condition

The temperature of the substrate should be at least 3°C above the dew point of the air. Temperature and relative humidity should be measured in the vicinity of the substrate. The maximum recommended surface temperature is approx. 40°C and relative humidity during application and curing should not exceed 80% . When applying the paint in confined spaces, provide adequate ventilation during application and drying. The temperature of the mixed paint should be at least 10°C.

Storage, Handling & Shelf Life

Generally, keep the paint containers in dry and cool (5-35 °C) place and away from heat or open flame. Paint containers must be kept tightly closed in the well-ventilated area and handled with care. This product's shelf life @ 23 °C is 12 months.

Environmental, Health & Safety Note

Read the material safety data sheet (MSDS) of the product before use and pay attention to safety signs attached to the product can. This product is flammable so keep away from heat and open flame.

Avoid skin and eyes by wearing overall, glove, goggles, and a suitable mask. Spillage on the skin should immediately be removed with a suitable cleanser, soap, and water. Eyes should be well flushed with water, and medical attention sought immediately. Don't discard the product on planets, sea, river and drinking water sources.

Keep out of reach of children.

Disclaimer

The information in this document is given to the best of IRIS's knowledge based on professional tests by our experts. However other factors that are affecting the use and application of this product are out of IRIS's responsibility.

For more information contact with Darya Tamin.