

IriSil™

General Description

IriSil™ is a high zinc content, ethyl silicate that specially formulated to provide long-term corrosion protection. This product is resistant to industrial and chemical exposure as well as marine exposure of structural steel. IriSil™ without a topcoat has excellent resistance to weathering and ultraviolet exposure. The product has abrasion and heat resistance up to 400°C (depending on the coating system and conditions of application).

Product Technical Information

- Solids by volume 50 ±1 %
- Density 2.35 ±0.05 Kg /Lit
- Flashpoint >13°C
- Colors/Finish Grey/Matt
- Mixing ratio Component A to Component B 40 to 60 (by volume)
- Suitable Thinner/Cleaner IriThin66

Note: Mix the zinc paste before adding the binder. Step-by-step add the binder and stir the mixture to achieve a homogeneous product. To avoid blockage of the spray, remove large particles by filtration of the mixture. During application, the mixture should be stirred to ensure the material remain uniformly blended. Always add thinner after mixing the components.

- Pot Life

	@ 23°C	@ 30°C
	6 hours	4 hours

Drying & Recoating Times

Temperature	To touch	To handle	To recoat	
			Minimum	Maximum
@ 23°C & 70% RH	30 minutes	4 hours	3 days	Indefinite
@ 30°C & 70% RH	15 minutes	2 hours	2 days	Indefinite

Note: Drying times are dependent on air and surface temperatures as well as film thickness, ventilation, and relative humidity. Maximum recoating time is highly dependent upon actual surface temperatures, not simply air temperatures, higher surface temperatures shorten the maximum recoat window.

When recoated with itself, IriSil™ should be applied wet on wet. When recoating with other products, the coating should be fully cured, dry and free from zinc salts and other contaminants. Curing can be checked by conduction the MEK rub test (ASTM D 4752). A mist coat may be required when applying a subsequent coat on the top of IriSil™ to prevent application bubbling. At relative humidity below 55%, curing is retarded. 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: 4-5 bar • Nozzle size: 1.8-2.2 mm • The volume of thinner: 0-10% 	<ul style="list-style-type: none"> • Nozzle pressure: 120-200 bar • Nozzle size: 0.53-0.64 mm • Spray angle: 40-80 degrees • The volume of thinner: 0-3 % 	<ul style="list-style-type: none"> • Suitable for touch up.

- **Recommended thickness**

	Dry film thickness(µm)	Wet film thickness(µm)	Theoretical spreading rate (m ² /l)
Acceptable range	60-80	120-160	6.3-8.3
Recommended	70	140	7.1

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 IriSil™ after the steel has been blasted and the quality of preparation has been approved.

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.

Do not apply IriSil™ under severe environments.

Storage, Handling & Shelf Life

Generally, keep the paint containers in dry and cool (5-23°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.

The binder part A (IriSil™ A) has a shelf life of 3 months in a storage temperature of 23°C. The binder part B (IriSil™ B) has a shelf life of 6 months in a storage temperature of 23°C. Storage temperatures above 23°C may reduce the shelf life period and the binder part A should not be stored above 30°C.

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.