



## SilOxi - 104

### Thin-Film, Hybrid passivation coating

Silane based coating providing hydro- and oleophobic properties with high wear and chemical resistance for oxidizing substrates such as carbon and stainless steel, aluminum, fiberglass and epoxy coated surfaces

**TECHNICAL DATASHEET so104/1701**

- Designed to provide environmental protection against corrosive, chemical and UV exposure
- Easy to clean– No Organic growth ASTM G21
- Impairs absorption/adsorption of corrosive matter
- Provides a strong, high gloss, glass-like surface with no risk of delamination – Chemically bonded
- SilOxi represents the most significant advance in ambient cured ceramic protective coatings
- Long term protection **utilizing environmentally neutral chemistry**
- Organic-inorganic hybrid coating solution, formulated for Easy application

### Product Description

SilOxi 104 is designed as a high gloss, thin-film protection for oxidizing substrates such as carbon steel / stainless steel / aluminum surfaces providing hydrophobic and oleophobic properties. Typical applications for SilOxi 104 would include pipes, pumps, valves and utility room surfaces and other equipment in all environments including high humidity, salt-water and chemical exposure. SilOxi-104 impairs / repels the adhesion of corrosive matter, oils, scum and microorganisms, resulting in reduced corrosion and wear

- UV-resistant
- High Chemical resistance
- High thermal resistance
- Corrosion Protection based on ASTM B117 Salt Fog Testing @ +6,000 hours
- No Organic growth ASTM G21

These properties also make surfaces easier to maintain. No abrasive or toxic cleaners will be necessary to clean or maintain the aesthetic or operational need of the surface. This system was designed utilizing silane chemistry along with a highly crosslinked network that will strengthen the surface making it scratch resistant with low friction while enhancing “grip ability” (not a slippery surface).

All this is accomplished with the environment and environmental pressures in mind. SilOxi 104 is environmental neutrally formulated - no heavy metals, toxins nor harsh solvent are used in the manufacturing of SilOxi 104 resulting in negligible VOC emissions for our applicators.

### Product Information

<b>Color</b>	Clear, yellow hue
<b>Finish/Sheen</b>	Clear, High gloss
<b>Components</b>	2
<b>Volume Solids</b>	98%
<b>VOC</b>	3-6 g/L
<b>Flash Point</b>	77.9 °F / 25.5°C (Pensky-Martens Closed Cup)
<b>Unit Size</b>	280 gr 25kg jugs and 55 gal drums

### Application / Drying / Overcoat Information

<b>Method of Application</b>	Wipe, dip, brush, roller or airless spray
<b>Number of coats</b>	1
<b>Dry Film Thickness</b>	Subject to substrate absorption; typical 0.3-0.6 mils
<b>Application Temp</b>	50-95°F (avoid direct sunlight)
<b>Theoretical coverage</b>	9 fl. oz. per 430 SQFT
<b>Dry Time</b>	To touch: 25 minutes Hard: 5 hours Fully reacted: 48 hours
<b>Thinner</b>	<b>DO NOT THIN</b>
<b>Cleaning</b>	Ethyl, methyl alcohol, isopropanol or denatured alcohol



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Silane based coating providing hydro- and oleophobic surface properties with high wear resistance for oxidizing substrates such as carbon and stainless steel, aluminum, fiberglass and epoxy coated surfaces

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#### Surface Preparation

On new surfaces (untreated), the surface should be thoroughly cleaned prior to treatment to remove all contaminants and oily substances. Finishing off with a wipe down using ethyl (denatured) / methyl alcohol or isopropanol is often recommended. Sand blasting or chemical treatment (etching) is Not required for SilOxi to bond well to the substrate but is sometimes necessary for proper cleanliness or esthetics.

**NOTE: If sand blasted to a profile, we recommend SilOxi-110 which provides a slightly thicker, high gloss shield on sand profiled surfaces.** Make sure the surface to be treated is completely dry. Do not allow water to come in contact with SilOxi 104 before it is dry/hard to handle (approximately 1 to 2 hours). Coating performance is always proportional to the degree of surface preparation. Avoid shortcuts. Inadequate performance will follow inadequate surface preparation.

#### Application / Systems and Use

Recommended temperature to apply SilOxi 104 is 70-85°F (20-30°C). For best results, use IMADA recommended application tools.

**Plan your application well.** Do all masking and prep-work prior to mixing. If smaller pre-measured kits are used, mix SilOxi-104 Base and SilOxi Act-100 by pouring the Act-100 into Base container (both are pre-measured so both contents will be contained in Base container). Seal cap and gently mix/shake for one full minute and allow it to rest for one minute, shake again a few times and the solution is ready to use. If using larger sized packaging that are not pre-measured components, mixing ratio is 100:15 (Base : Act-100)

SilOxi-104 may be applied by wiping, brush, roller or airless spray. A thin and even wet film should be left on the surface to be adsorbed into the surface of the substrate – on vertical surfaces; the substrate will hold just the amount it can take. On small surfaces, around trimmings and hard to reach areas, a lint free microfiber towel is the preferred method of application. **HINT: Dip the cloth so that it is soaked but not dripping.** Wipe the surface with soft pressure in an even and systematic pattern leaving a thin, even wet film on the surface – just enough so it does not run off. **NOTE: Overlap application wet-on-wet.**

On larger surfaces, a soft, alcohol resistant applicator pad with handle may be used for smooth applications. Dip the applicator pad into the ready solution (using an alcohol resistant paint tray – plastic - as a container). **HINT: Hold it vertically over the tray so some of the excess fluid runs off.** Swipe the pad with soft pressure in an even and systematic pattern leaving a thin, even wet film on the surface – just enough so it does not run off. Apply in sections from the top to down. **NOTE: Overlap application wet-on-wet.**

**Brush application:** use a high quality natural bristle brush. **Roll application:** use a high quality, low nap, and solvent resistant roller. Apply uniform and sufficient. A slow, well loaded roll helps to avoid the creation of air-bubbles. **Spray application:** airless spray with 0.015-0.017 tip is recommended. Air spray with moisture and oil trap and a 0.070" fluid orifice.

**CAUTION:** Do not apply SilOxi-104 in direct sunlight. Direct sunlight or high temperatures should be avoided until the surface is dry to touch; otherwise SilOxi could react too quickly, which will impair its performance. Do not apply SilOxi-104 in rain, heavy fog or in dew, as this will also adversely affect the performance of the product. When not in use, keep the container with SilOxi sealed tight so not to expose it to air and moisture.

#### Transportation, Storage and Safety Information

##### Packaging and storage

- Keep containers tightly closed in a cool, dark and well-ventilated place.
- Keep tightly sealed in original packaging.
- Flammable liquids – handle with care.

##### Safety and handling

Before using, please read the Safety Data Sheet (SDS) thoroughly for safety and toxicological data as well as for information on proper transportation, storage and use.

##### Limited warranty information – Please read carefully

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