



AluSil 500

Hybrid passivation for Marine Aluminum

High gloss Silane coating providing hydro- and oleophobic surface properties with high wear and oxidation resistance for marine aluminum

- Protects the surface from environmental wear **PLUS** provides oxidation / chemical protection
- Shields the surface from the attachment of microorganisms (algae, scum) for easy maintenance
- Repellent qualities minimize adsorption of water and other corrosive matter
- Provides a strong, high gloss, hydrophobic surface with no risk for delamination.
- Many years of protection *utilizing environmentally neutral chemistry*
- Easy application

Product Description

AluSil 500 was designed and formulated as a surface modifier/coating for aluminum hulls, pontoon bullets and other marine aluminum surfaces. Applied as a clear, alcohol-like solution, it reacts with the free ions on/in the aluminum and cures to a chemically bonded, glass-like surface with hydrophobic and oleophobic properties. This integrated shield minimizes oxidation, staining and impairs the adhesion of scum and microorganisms on the aluminum. It does not etch or change the physical appearance of the aluminum except providing a higher sheen and depth.

AluSil 500 makes the aluminum surfaces easier to maintain, no abrasive or strong cleaners will be necessary to clean the hulls / pontoons. In addition, the new surface will repel water as well as the associated dirt resulting in an integrated friction reducer, i.e. fuel efficiency.

This system was designed utilizing silane chemistry providing a highly crosslinked network that strengthens the substrate, making it more than twice as scratch resistant, eliminating staining, black marks while enhancing “grip ability” even though reducing friction (not a slippery surface). Perhaps the key benefit for AluSil 500 is that the system is environmental neutral - no heavy metals, toxins nor harsh solvent are used which also *results in negligible VOC emissions*.

Product Information

Color	Clear, yellow hue
Finish/Sheen	Clear, High gloss
Components	2
VOC	3-6 g/L
Flash Point	77.9 °F / 25.5°C (Pensky-Martens Closed Cup)
Unit Size	280 gr (2K combined) 25kg or 55 gal drums

Application / Drying / Overcoat Information

Method of Application	Wipe, dip, brush, roller or airless spray
Dry Film Thickness	Subject to substrate absorption; typical 0.3-0.6 mils
Application Temp	50-95°F (avoid direct sunlight)
Theoretical coverage	10 fl. oz. per 400 SQFT
Dry Time	To touch: 25 minutes Hard: 5 hours Fully reacted: 48 hours
Thinner	DO NOT THIN
Cleaning	Ethyl, methyl alcohol, Isopropanol or denatured alcohol



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Surface Preparation

On new aluminum (untreated), the surface should be thoroughly cleaned followed by a wipe-down with alcohol (Isopropanol is recommended) to remove all contaminants and oily substances. For a thoroughly cleaned surface, utilize cotton terry cloth towels or textured shop towels. Sand blasting or chemical treatment (etching) is not required for AluSil to bond/react to the aluminum. **NOTE: On sand blasted surfaces with a noticeable profile, AluSil 1000 is recommended if a higher gloss and an easy-to-clean surface is desired. If the substrate is mirror polished a pre-treatment such as Imada Prep-100 may be necessary.**

Make sure the object to be treated is completely dry. Do not allow water to come in contact with AluSil 500 before it is dry/hard to handle (approximately 1 to 2 hours). Avoid shortcuts. Inadequate performance will follow inadequate surface preparation.

Application / Systems and Use

Recommended temperature for treatment with AluSil 500 is 70-85°F (20-30°C). For application, use Imada approved tools.

Plan your application well. Do all masking and prep-work prior to mixing. Mix base AluSil 500 Base and Activator AluSil Act-100 by pouring Activator into Base (both are pre-measured so 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)

AluSil 500 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 AluSil 500 in direct sunlight. Direct sunlight or high temperatures should be avoided until the surface is dry to touch; otherwise AluSil could react too quickly, which will impair its performance. Do not apply AluSil 500 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. UN 1993.

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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