



MetalJacket LT (formerly SGM 1001)

Aluminum Passivation System

Silane passivation system providing higher oxidation and better wear resistance for all marine aluminum surfaces

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- Penetrating formula allows coverage of “hard-to-reach” rivets, threads, drilled holes, etc.
- Nearly invisible (200-500nm thick) and chemically bonded with no risk of delamination
- Prevents oxidation through integrated protection
- Optimized surface energy provides repelling properties
- Protection for several years **utilizing environmentally neutral chemistry**
- Easy application

Product Description

MetalJacket LT was designed as a surface modifier for aluminum substrates used in the marine environment. The ultra-thin (200-500nm), inert shield provides a more scratch and wear resistant surface together with repelling properties. These properties impair the absorption of moisture, salts and chlorides. Additionally the passivation provides an extended shield against galvanic corrosion and electrolysis.

- UV-Stable
- Chemical resistant
- Repelling surface tension
- Low friction

MetalJacket LT is an alcohol based, one-component, inorganic/organic silane formula. Compared to traditional aluminum passivation-systems based on oils and waxes containing solvents as carriers, **MetalJacket LT** has 100% reactive materials that form a semi-permanent chemical bond on the surface. Perhaps the key benefit for SGM 1001 is that it does not contain any harsh solvents, heavy metals or toxins resulting in negligible VOC emissions.

Product Information

Color	Clear, colorless
Finish/Sheen	Semi-gloss
Components	1
Volume Solids	98.5%
VOC	2-4 g/L
Flash Point	77.9°F / 25.5°C (Pensky-Martens Closed Cup)
Unit Size	300 ml, 600 ml, 1,200 ml, 25kg jugs and 55 gal drums

Application / Drying / Overcoat Information

Method of Application	Wipe, dip, brush, roller or airless spray
Number of coats	1
Dry Film Thickness	Subject to substrate absorption; typical 200-500 nm (0.2-0.5 micron)
Application Temp	50-95°F (avoid direct sunlight)
Theoretical coverage	300 ml per 500 SQFT
Dry Time	To touch: 25 minutes Hard: 1.5 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 cleaned prior to treatment with methyl alcohol or isopropyl alcohol (denatured alcohol could leave unwanted residue, therefore not recommended) to remove all 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. **NOTE: On sand blasted or highly polished surfaces, use only *MetaJacket XL* that is specifically designed for sand blasted and highly polished surfaces.** Make sure the object to be treated is completely dry prior to application.

Avoid shortcuts. Inadequate performance will follow inadequate surface preparation.

Application / Systems and Use

Recommended temperature for *MetaJacket LT* is 70-85°F (20-30°C) and 50% humidity. Use SGM approved tools for application.

Plan your application well. Do all masking and prep-work prior to opening *MetaJacket LT* container.

MetaJacket LT may be applied by utilizing a microfiber towel, paint pad, brush, roller or airless spray gun. A thin and even **wet film** should be left on the surface to be absorbed into the surface of the aluminum – aluminum will hold just the amount it can take. On small surfaces, around trimmings and hard to reach areas, the SGM supplied microfiber cloth is the preferred method of application. **HINT: When using the microfiber cloth, allow fabric to be soaked but not dripping before applying product on surface.** 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.

On larger surfaces, use the SGM applicator pad with handle. Dip the applicator pad into the product (using an solvent resistant paint tray). **HINT: When using the applicator pad, allow the pad to be soaked but not dripping before applying product on surface. Tip pad from side to side to get rid of excess product over paint tray.** 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; left to right.

NOTE: ONLY overlap application on a wet-on-wet basis (this is typically within 10 minutes of initial application).

NOTE: Do not apply too thin! Product will not perform at its designated level if applied too thin.

NOTE: Allow full 4 hours to cure before placing object into the elements and a full 48 hours before submersing in water. If these parameters are not followed, the product will not perform at its designated level.

Dip-application is preferred on smaller components such as rivets, nuts and bolts. Using a plastic strainer and holding container (solvent resistant), dip cleaned components in *MetaJacket LT* solution. Shake off excess liquid. Carefully remove droplets or “curtains” with a cloth. Place separated components in a dry environment to cure.

Brush application: use a high quality natural bristle, urethane 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 *MetaJacket LT* in direct sunlight. Direct sunlight or high temperature should be avoided until the surface is dry to touch; otherwise *MetaJacket LT* could react too quickly, which will impair its performance. Do not apply *MetaJacket LT* 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 *MetaJacket LT* 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

Prior to use, read 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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