



MetalJacket XL (formerly SGM 1005)

Hybrid coating for Marine Aluminum
Alcohol based thin-film coating with hydro- and oleophobic surface properties with high wear resistance for all marine aluminum surfaces

TECHNICAL DATASHEET 1703 11/14

- Hybrid passivation / coating system with super high gloss and high wear resistance
- Protects the surface from environmental wear **PLUS** provides corrosion / chemical resistance
- Minimizes the attachment of microorganisms (algae, scum) making for easy maintenance
- Repellent qualities minimize the absorption of water and all petroleum based products
- Protection up to five years **utilizing environmentally neutral chemistry**
- Easy application

Product Description

MetalJacket XL was designed as a hybrid passivation/coating system for surfaces exposed to high wear or erosion and where a super high gloss surface is desired. **MetalJacket XL** is used on aluminum hull and pontoon tube surfaces by creating a chemically bonded, thin-film surface shield with hydro- and oleophobic properties. These properties impair the adhesion of oils, greases, scum and microorganisms on the aluminum surface resulting in reduced corrosion and wear:

- UV-resistant
- Chemical resistant
- High erosion resistance
- Corrosion Protection based on ASTM B117 Salt Fog Testing @ +1,000 hours
- No Organic growth ASTM G21

MetalJacket XL provides a thicker shield compared to **MetalJacket** and is recommended for substrates subjected to high erosion or when the surface has a rough profile (sand blasted or chemically etched). The highly absorbent properties of a sand blasted surface (finger prints, oils and atmospheric materials) become impermeable with **MetalJacket XL** eliminating masking time and costs while providing a long term solution for protection of the surface. **MetalJacket XL** is also recommended for highly polished surfaces to leave a clear and reflective surface.

MetalJacket XL makes the aluminum easier to maintain: no longer are abrasive or toxic cleaners necessary to clean the aluminum surface. In addition, the new surface will repels water resulting in an integrated friction reducer, i.e. fuel efficiency. This system was designed utilizing silane chemistry along with a highly crosslinked network that will strengthen the surface making it scratch resistant and eliminating black marks while enhancing "grip ability" (not a slippery surface). A key benefit of **MetalJacket XL** is that it is **environmentally neutral** - no heavy metals, toxins nor harsh solvents are used resulting in negligible VOC emissions.

Product Information

Color	Clear, colorless
Components	1
Finish/Sheen	Super high gloss
Volume Solids	98%
VOC	3-6 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 profile or absorption; typical 10.0µm
Application Temp	50-95°F (avoid direct sunlight)
Theoretical coverage	300 ml per 385 SQFT
Dry Time	To touch: 45 minutes Hard: 3-5 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. **HINT: For sand blasted surfaces, take care to clean surface of all substances and oils prior to treatment.** 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 **MetalJacket XL** 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 **MetalJacket XL** container.

MetalJacket XL 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.

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

The information contained herein is based on SG Marine's (SGM) present knowledge and experience, it is believed to be accurate and is offered in good faith. However, because conditions and methods of use of our products are beyond our control this information should not be used in substitution for customer's tests to ensure that our products are safe, effective and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent. SGM's sole warranty is that our products will meet the sales specification in effect at the time of shipment.

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May only be sold/distributed by an SGM approved and certified representative.