

VeroMetal® Marine M300

Technical Data

VeroMetal

Description: **VeroMetal® Marine M300** Antifouling Coating is a high solids antifouling and is based on 99% pure **copper** particles in proprietary hybrid polyester binder (not leaching cuprous oxide technology). M300 is a long lasting coating suitable for protection in the severest of fouling conditions.

VeroMetal® Marine M300 is approved in Great Britain: HSE approval No. 8685, Germany: N-35042 and in France (No. 1981). The International Watersportscommunity Bodensee (IWGB www.iwgb.net) has listed **VeroMetal® Marine M300** as environmental friendly antifouling.

VeroMetal® Marine M300 fully complies with International Maritime Organisation (IMO) Resolution MEPC 102(48).

Recommended use: As an antifouling coating for use on hulls constructed of composite materials such as GRP (Gel coat) it is not recommended for use on metallic hulls or structures without appropriate and approved primers. As an antifouling for bottom of vessels operating slow to very high speed.

Type of Product: 3 component Kit: Copper, Binder/Resin, Hardener.

Pack Size: 1 Kit **VeroMetal® Marine M300** is 2.27 kg and consists of:

Part A Binder:	1.000 gr
Part B Copper Metal:	1.250 gr
Part C MEKP-Hardener:	20 gr

Shelf Life: Part A Binder: 6 months
Part B Metal: 12 months
Both under dry conditions at 20° Celsius.

Physical Constants: Colour: Red/Brown
Finish: Matt/Semi gloss
Weight % Non-Volatile: 83.13 ± 1
Theoretical spreading rate: 3 m²/kg - 100 micron
Flash point: 32°C 89°F
Dry to touch: 1 hour at 20°C/68°F
V.O.C: 260 g/litre

APPLICATION DETAILS:

Application method: High Volume Low Pressure (HVLP), Roller (solvent resistant foam)
Nozzle orifice: 1.1 to 1.6
Nozzle pressure: 1.1 to 1.5 bar/16 to 22 psi
(HVLP spray data is indicative and subject to adjustment)

Cleaning of tools: Acetone

Indicated film thickness, dry: 100 micron

Indicated film thickness, wet: 125 micron

VeroMetal® Marine M300

Technical Data

VeroMetal

Recoat interval:	As per coating specification
Safety:	Handle with care. Before and during use, observe all safety labels on packaging and containers, consult VeroMetal Material Safety Data Sheets and follow all local or national safety regulations. Avoid inhalation, avoid contact with skin and eyes, and do not swallow. Take precautions against possible risks of fire or explosions as well as protection of the environment. Apply only in well ventilated areas.
Surface Preparation:	Remove possible oil and grease etc. with suitable detergent, followed by high pressure fresh water cleaning for a thorough removal of any possible weak or flaking structure of old coating. Allow the surface to be completely dry before coating. Sand the surface with a coarse grit paper like 100 grit. This procedure will level any irregular surfaces and scratch the surface enough to create a suitable surface for VeroMetal to bond.
Application Conditions:	<p>The surface must be completely clean and completely dry at the time of application. Primers that contain volatile solvents such as Epoxy products have to dry out completely before applying VeroMetal® Marine M300. The solvent based primers that rely on evaporative curing may affect VeroMetal adhesion. The temperature must be 5 points above the dew point to avoid condensation. In confined spaces such as sea chests and stagnant air under large flat bottoms provide adequate ventilation during application and drying.</p> <p>Choose the correct hardener: MEKP 9: > 15° Celsius MEKP 5: > 5° Celsius to 15° Celsius</p> <ol style="list-style-type: none">1. Open Pack A (Binder)2. Stir the Binder thoroughly3. Open Pack B (Metal) and add into Pack A (Binder) and stir slowly and thoroughly to make a smooth, even-textured mixture free of clumping.4. Open Pack C (Hardener) and add into the canister. Stir with a flat stirring stick for at least 30 seconds, making sure to reach the sides and bottom of the container. <p>Thorough mixing during both mixing steps is essential for even curing and spraying/rollering.</p> <p>Once you activate the metal and binder you have approximately a 60 minute pot life at 20 degrees C°.</p> <p>Spraying is the best way to applicate the product. But rolling the boat is also possible.</p> <p>Stripe coat all crevices, and sharp angles. When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle. Do not mix previously catalysed material with new. In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended down-time with acetone.</p>

It is also very necessary to not try to use the same roller tray for adding new materials as this would lead to the initial material beginning to cure and therefore be picked up in clumps by the roller in subsequent application. The materials can be applied in a single coat using the technique of cross hatching, this affords a much better coating in as much as there is less likelihood of pinholes.

- Remarks:** This product contains heavy particles. Stir well before use. After Drying process is recommended grinding the surface with finer Steelwool, in order to remove polyester remainder at the surface.
- Colour:** There is no tinting of VeroMetal M300, rather the colour is of natural copper certain variation from batch to batch is allowable. Exposure to humid weather shortly after application is likely to cause a patina effect. This is a surface phenomenon only and has no influence on performance nor subsequent recoating.
- Application equipment:** Standard HVLP spray equipment (with water and oil containment traps) or solvent resistant foam roller.
- Film thickness:** Range and control of dry film thickness: 100 to 150 micron. Indicated film thickness will vary according to specification. This will alter spreading rate and may influence drying time. In case of multi-coat application, drying time and minimum recoat interval will be influenced by the number of coats and by the thickness of each coat applied - reference is made to the corresponding coating specification. The proper way of governing the film thickness is to sub-divide the areas to be coated and calculate the amount of product to be applied on each sub-divided area. The exact amount of Marine M300 calculated must be applied evenly on the area.
- Recommended number of coats:** No maximum. Following a 20 minute window recoating is possible. No more than one coat is necessary if applied correctly. After Drying process is recommended grinding the surface with finer Steelwool, in order to remove polyester remainder at the surface.
- Time to re-launch:** Minimum time depends on number of coats applied, film thickness, the prevailing temperature and the subsequent exposure/service conditions. Maximum time to re-launch depends on the atmospheric conditions (UV radiation, temperature, degree of atmospheric pollution, etc.). Exposure to the atmosphere in up to 36 months normally presents no problems but extraordinary Contamination may call for a freshwater high pressure hosing.

The information in this data sheet is given to the best of our knowledge based on laboratory testing and practical experience. However, as the product is used under conditions beyond our control, we cannot guarantee anything but the quality of the product itself. We reserve the right to change the product information without notice. All statements, information and data provided in this document are based upon data obtained from recognized technical sources and are believed to be accurate and reliable but are presented without guarantee, warranty or responsibility of any kind, expressed or implied. VeroMetal GmbH expressly disclaims all expressed or implied warranties of marketability and fitness for a particular purpose with respect to the product or the information contained herein. Users should make their own investigations to determine the accuracy and suitability of the information, specifications, technical data or products for their particular purpose(s).