



# Marine

## Product Data Sheet

### PRODUCT DESCRIPTION:

COVAL MARINE is a thin-film single component coating that creates a matrix of nano sized particles that crosslink with the substrate and itself. This high-tension crosslink creates an extremely hard, durable, waterproof, non-toxic clear surface. This extremely smooth surface decreases drag and prevents marine growth from being able to properly attach to the hull. The coating is extremely thin and will not change the topography of the surface being coated, so proper surface preparation is vital for best performance.

COVAL MARINE is designed specifically to be applied directly to gel coated fiberglass, aluminum, brass, bronze as well as over marine paints including copper-based paints. This will substantially reduce copper leaching into the waterways. **CAUTION:** Not for use on wood hull boats.

### RECOMMENDED USES:

Use COVAL MARINE in any environment to protect from corrosion, marine growth, UV oxidation, and environmental damage. This coating is designed for surfaces above or below the water line.

- Direct to aluminum and brass
- Painted hulls
- Fiberglass / Gelcoat hulls
- Decks and Superstructure

### THIN FILM COATINGS:

**CAUTION:** Coval Coatings are professional grade coatings and should only be applied by experienced professionals. Coval has created a completely new kind of hybrid cross linking coating. This extreme cross linking is the science that allows the coatings to be so hard and durable, yet so thin. As they cure, the extreme cross-linking creates a high surface tension which in

turn gives the coating extreme hardness. They will also not change the topography of what they are coating. It is extremely important that the surface is prepared as smooth as possible for the best results.

The best practice is to apply enough coating to “wet-out” the surface and leave it to dry. Do not exceed 2 – 3 mils, wet film thickness. **MORE IS NOT BETTER.** If you apply the coating too thick, it will attempt to cross-link away from the surface, which may cause fracturing or delamination. Over applying the coating will either destroy the coating or cause whatever the coating is applied on to peel. Yes, it is amazingly strong.

Our coatings are specifically designed for the substrate listed in the Data Sheet and should never be applied to substrates not listed.

### PRODUCT CHARACTERISTICS:

Color: Clear to slightly opaque – If the coating is not clear call your Distributor – do not apply.

Always dries clear.

Vehicle Type: Solvent Base

Flash Point: (C Penskey-Martens closed Cup) 25C/77F

VOC: less than 100 g/L

Weight per Gallon: 7.36 lb.

Non-breathable

### Testing:

ASTM D-4060 Taber Abrasion	<1
ASTM D-3363 Film Hardness Pencil	9H
ASTM D-245 Heat Resistance	230 C
ASTM D4541 Adhesion-Aluminum	1700 PSI
ASTM D3359-97 Adhesion	4
ASTM D1654 Salt Spray Scribed	6

**SCAQMD & PROP 65** Coval MARINE contains less than 100 g/L VOC and exceeds SCAQMD Rule 1106 requirements, the highest air quality control standards in the United States. COVAL MARINE contains no known carcinogens under Proposition 65, California's Drinking Water and Toxic Enforcement Act of 1986

**Spread Rate:**

**Recommended Spread Rate per coat:**

Dry mils: 0.2 - 0.4

Recommended 2 Coats at 0.2 – 0.4 dry mills each coat.

Wait 24 hours between coats.

**Coverage:**

Coverage: 300 - 400 sq. ft./gal (approximate) Coverage will vary depending on the porosity and texture of the substrate and application.

**Dry Time:**

Drying Time (@ 77 F, 50% RH):

Temperature and humidity dependent.

Touch: 2-3 hours

Through: 3-5 hours

Full Cure: 5 Days cure for gel coat, aluminum, and painted surfaces.

COVAL MARINE cures with humidity. Dryer climates will take longer to cure. Allow **5 days prior** to launch or water contact.

**APPLICATION INSTRUCTIONS:**

Coval MARINE is sprayed on using High Volume Low Pressure (HVLP) sprayer with a 1.0-1.3 spray tip with air pressure between 8 to 15 psi. On a piece of cardboard, first spray a test pattern. Fluid flow should cover but not puddle, drip, or run. Spray the coating on in a cross pattern as you move down the vessel from top to bottom, then right to left, keeping a wet edge. The goal is to wet out the surface and not have any drips. It is important to wet out the surface so the coating is able to properly crosslink. Practice on a scrap piece before you try this. Always test the coating on a small area of the boat first to make sure the coating is compatible with your marine paint. Contact Coval if you have questions.

**CAUTION:**

If using spray application method in an enclosed space, make certain to tent off the area being sprayed with plastic tarps to avoid spray dust from traveling and contaminating other surfaces. Tented and enclosed areas always require to be positively supplied with fresh air and have ventilated exhaust to outside using fans. Never spray near any open flame or any possible source of ignition such as pilot light, or anything that may spark, as this may cause ignition and explosion of the fumes and vapors. (In enclosed areas, make sure to have an observer watching the applicator for any signs of physical distress.)

If applying outdoors, make certain the ambient temperature is between 40°F and 105° F, and RH is under 90%. Make certain that there is no chance of rain for a minimum of 5 hours after the estimated time of completion of the coating process. Also make certain there will be no additional return of morning dew to make the surface damp again before it has had a chance to dry. If there is high wind, this will affect the quality of the finish, as blowing wind can disrupt the spray pattern from your HVLP. It can also contribute to contamination of the finish from blowing dust. It may be necessary to erect a windscreen to protect the area.

**SURFACE PREPARATION:**

**IMPORTANT: REMOVE ANY SILICONE**

Coval MARINE will not adhere to silicones. To determine if the surface is previously sealed or coated, sprinkle water onto the surface. If the water is absorbed and the surface becomes darker, it has not been sealed. If the water beads up, there is a coating or sealer that must be removed to allow adhesion to the substrate. Remove silicone sealers, then rinse with fresh water and dry and retest. Surface must be completely dry.

**Metal**

For brass, stainless steel, carbon steel, aluminum, or bronze surfaces, apply to bare metal. Clean the entire surface with alcohol or acetone. Allow to dry and then apply MARINE directly to the surface. Apply 2 coats allowing 24 hours between coats.

**Fiberglass**

Lightly sand fiberglass with a 120-grit sander. Then clean the surface with an alcohol or acetone wipe. Apply 2 coats allowing 24 hours between coats.

### **Copper Based Antifouling Paints**

Ablative Bottom paints should be removed before applying Coval MARINE. Non ablative copper-based paints can be coated. Sand the paint to get as smooth as possible surface. Then clean the surface with an alcohol or acetone wipe. Apply 2 coats allowing 24 hours between coats. Coval MARINE will encapsulate the Copper based paint and prevent it from leaching copper into the water.

### **CLEAN UP:**

Clean tools and flush equipment with acetone at least twice immediately after application.

**IMPORTANT** - once coating is dry the tools will not clean up with acetone or any other solvent.

### **Environmental and Safety:**

Always wear OSHA approved 1910.134 and ANSI Z88 2 respiratory protection. Fresh air and exhaust should be provided in the work area. If inhaled, remove affected person to fresh air. Call physician immediately if physical difficulties occur. Wear butyl rubber gloves and other skin protection to avoid contact. In the event of contact with skin, wash skin thoroughly with soap and water. Chemical safety goggles or splash shields are required. Do not wear contacts without eye protection. If you get coating in your eyes, rinse with fresh water for 15 minutes and seek immediate medical attention. If accidentally swallowed, rinse mouth with fresh water for 15 minutes and seek immediate medical attention. (In enclosed areas, make sure to have an observer watching the applicator for any signs of physical distress.) Consult the Safety Data Sheet (SDS) for more information concerning proper Personal Protective Equipment and precautionary measures that are recommended for proper protection while handling this product.