COELAN® MARINE PRODUCTS

WORKING TIPS

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1. PRIMER CONSUMPTION

PRIMER consumption will be about 200 to 250 ml (or 6.76 fl. ounces to 8.45 fl. ounces) per square meter (10.8 sq. ft.). Apply an even and complete coat.

2. COATING THICKNESS / CONSUMPTION

Consumption will be 1.0 liter / 1.06 US qt. non thinned coating per 1 square meter (10.8 square feet) finished surface. It is important that the directions regarding coating quantities should be followed. The coating must be applied in several coats (approx. 5 -10 layers of 0,15 mm to 0,2 mm each) until a minimum of 1 mm / 0.039 in. total coating is applied. Drying time between coats can vary due to effects of temperature and/or humidity. High ambient air temperature (> 86º F) and/or high humidity (> 85%) may require the addition of COELAN Retardation Agent to slow the cure or drying time. See also sections 19, 20.

3. CONTAINERS - OPEN AND CLOSING

Do not open the container until ready to apply. COELAN boat coatings are products which cure on exposure to atmospheric humidity. We recommend the contents of the container be used the same day whenever possible.
If the contents are not likely to be completely used, the required quantity of COELAN® boat coating should be poured off, and the remaining air column in the original container may minimised using the following method. Put a piece of plastic film inside the can (flat, on top of the coating) so that the coating surface exposure to the air is minimised. Note: It may be difficult to open a resealed can again because of the adhesive characteristics of the coating. The top and can will stick together and reopening may deform the can making further airtight closing difficult. To make reopening of the can easier, put a piece of plastic food wrap between the can and the top when closing it. Further, store the can upside down to minimise the formation of any skin on top of the coating. Be certain that the can is tightly closed and nothing can seep out! Store the can upside down on a piece of paper or thin plastic film.

4. MOISTURE - LEVELS AND MEASURING

Use a hand held, dual probe, battery powered moisture meter to determine the moisture content in the wood. In the case of old wood, moisture should also be measured in the core or as near as is possible to the center of the plank. An alternative way to measure the moisture is the use of double layer of plastic food wrap taped down along all edges (edges must be totally closed) on top of the target surface and left to stand overnight. If condensation appears on the underside of the plastic, then this is an indication of the moisture content being too high. The wood will need more time to dry out. Wood moisture content needs to be in the range of 12% to 15%.

5. PAINT BRUSHES

Use small paint brushes even for large areas. This will make a consistent and even stroke of the brush easier. The brush must be easy to handle as this will help you to apply an even and smooth finish. If using rollers to apply the coating, verify they are solvent resistant and with a nap material and height which will produce the smoothest finish.

6. APPLICATION TECHNIQUE

Follow the general rule that each layer should be thinly applied (about 0,15 mm to 0,2 mm). Remember that COELAN is neither paint nor varnish, COELAN is a polyurethane based coating and needs to be applied in several thin layers (5 to 8 layers) to reach the final minimum coating thickness of 1 mm. / 0.039 in. and achieve the desired coating characteristics.
Do not try to hurry the application process by applying thicker layers. A single coat that is too thickly applied will not provide the time each coat needs for its substance reaction to create an even and smooth surface. The needed reaction and curing time is influenced by coating thickness, amount of thinner used, ambient air temperature and humidity.

7. BRUSHING TECHNIQUE

A proper brushing technique is important. Try not to overload the brush as excessive coating on the surface will make it difficult to move the brush smoothly. Some practice is required here. Run tests on scrap panels until you get the feel and obtain consistent desired results.
Avoid bearing down on the brush to spread more coating. Lightly touch the surface with the evenly loaded brush and then move the brush tip across the surface in even strokes. As soon as the brush stops applying a continuos flow of coating, re-load the brush, in this way you will prevent over-brushing. Concentrate on using easy and even strokes of the brush! When reloading the brush, do not wipe the brush against the rim of the can. Lift the brush free of the coating and let the excess drain off into the can.

8. SPRAY PAINTING

A sprayed on application gives particularly good results. But the spray process requires extensive training and practice. Spray painting requires strict compliance with the rules of the APPLICATION TECHNIQUE (please see above). Run tests on scrap panels until you can consistently obtain satisfactory results. Depending on the spraying process used, coating viscosity should be adjusted using “COELAN® THINNER” (e.g. at low pressure, 0.7 mm-nozzle, set at 40-35 DIN sec.-DIN 4 measuring beaker). Use a high volume, low pressure compressor. Please pay attention to the additional consumption rates due to spraying loss and thinning. Use only COELAN THINNER. Other products are not compatible.

9. HORIZONTAL SURFACE APPLICATION

For horizontal surfaces follow the application technique as described in section 6, APPLICATION TECHNIQUE.

10. VERTICAL SURFACE APPLICATION

With vertical surfaces, and in order to prevent the coating from running, it may be necessary to thin the coating between 10% and 30% with our “COELAN® THINNER”. Then, follow the APPLICATION TECHNIQUE described in section 6. Use only COELAN THINNER. Other products are not compatible. Do not over thin. Addition of COELAN THIXOTROPIC AGENT may be required to accelerate curing in some limited circumstances.

11. SILK FINISH

Silk (Matte) Finish is to be applied immediately on top of the final coat of gloss as soon as it is dry to the touch. Silk Finish is a one-coat application. Do not over apply as you will lose the effect. Please note: Silk Finish is a very slippery final finish and therefore is not recommended for deck applications. Do not use where solid footing is expected.

12. DRYING TIMES

Depending on temperature and relative atmospheric humidity, drying time for each of the coats will be between 2 and 6 hours. High humidity and high temperature create shorter drying times. Excessive humidity or high temperature can influence results. See also sections 19, 20, 21. Please pay attention to the HARDENING TIME (See section 13.)

13. HARDENING TIME

The required drying and hardening time of COELAN coating is of approx. 7 days before you can use the surface normally. Furniture and other objects can not been placed on the surface before! The surface can be carefully walked on after 24 hours but only if absolutely necessary.

14. SANDING BETWEEN COATS

Sanding between coats is required only when intervals between coats exceed fourteen days. Sanding should be done with #80 grain paper. However, sanding should be considered to even out the surface before the final coat is applied. In all cases; be sure the final minimum coating thickness of 1.0 mm / 0.039 inches is achieved.

15. CLOTHING RECOMMENDATIONS

Do not wear shoes during the application. Also do not go shoeless/barefoot. Wear clean pre-washed quality cotton socks. If wearing shoes, they must be very soft soled. To eliminate effects of perspiration falling on the bare surface or coating during application, it is recommended the user wear a light weight long sleeved shirt and long trousers and wrist and head sweat bands. Always wear clean, disposable latex gloves and eye protection. Carry a small towel as well as a small set of tweezers to carefully remove dirt or small contaminants from the coated surface.
Due to the effects of the sun and heat, it may be necessary to maintain body hydration during the application process. However, do not bring water bottles, ice, liquids etc... into contact with the prepared surface at any time during the application process.

16. JOINTS – GENERAL

Joints wider than 3 mm / 0.12 in. need to be sealed. Use a flexible joint sealing material. Polyurethane and polysulfide based sealers, self curing flexible wood putty or filler are recommended. Silicone based sealers are not recommended. See also sections 17, 25, 26.

17. JOINTS - HORIZONTAL AND VERTICAL

Seal horizontal deck to vertical wall joints after you have finished the application process. Give the coating the needed time to dry. The drying time should be at least 24 hours. Then apply a bead of silicone based sealant along the edge of the coating to seal the joints where horizontal to vertical surfaces meet. The objective being prevention of water entering under the coating at the edge. Silicone should never be used underneath the COELAN coating.

18. SEALING METAL AND PLASTIC PARTS

Metal and plastics parts, fittings and screws connected to the surface can create weak points on a coated surface if not treated thoroughly. Such parts should be removed before the application starts. Each screw hole as well as larger fastening points needs to be covered with primer and then coated accordingly. Before you re-install the parts, coat the sides of the parts which contact the coated surface and install it before it dries. Please dip every screw in the coating and then install and firmly bed the screw so that all joints are water tight. This technique will create optimum sealing and will greatly reduce the opportunity for water to cross the coating barrier.

19. RETARDATION AGENT

The COELAN retardation agent is a liquid additive that may be required for coating applications in tropical climates or in hot (>86º F) and humid (>85%) conditions. 3 % should be added to the paint. Retardation Agent thins the coating. As a result, more total layers of coating are required to reach the minimum 1 mm. / 0.039 in. necessary finished thickness. The coating may appear adequate after 5 layers, but additional layers must be applied until the final combined thickness of 1 mm. / 0.039 in. has been reached. This will serve to guarantee the characteristics of the COELAN application and to obtain the desired long lasting effect. The number of individual coats should then be increased correspondingly (8-10 coats). The rule will remain that 1 liter / 1.06 US qts. non thinned coating is needed for one 1 square meter / 10.8 square feet.

20. SUN EXPOSURE AND TROPICAL ZONES

Consideration must be given to the effects of direct sun exposure during application and curing time for each of the layers. Minimise/eliminate direct sun exposure of working surfaces to keep surface temperatures low. If you are in hot or tropical climate conditions; apply the coating in late afternoon. Further you may have to use the COELAN Retardation Agent in a hot and humid climate. The number of individual coats should then be increased

correspondingly (8-10 coats). The rule will remain that 1 litre / 1.06 US qts. non thinned coating is needed for one 1 square meter / 10.8 sq.ft. of coated surface. (See section 19.)

21. WORKING TEMPERATURES

Working ambient air temperatures shall not be below + 41°F (+5 °C) and not exceed a maximum of 86°F (+30 °C). The temperature of the working surface must also be considered. In direct sun, these surfaces should be protected with a shade cloth or sail before the coating process starts. Applications in tropical, hot and humid climate: Please refer to additional information under the paragraph SUN EXPOSURE AND TROPICAL ZONES above. (See section 20.)

22. ANTISLIP PROTECTION

Use COELAN "ANTISLIP" where a secure footing or resistance to slipping is desired. Due to its rubber like consistency, COELAN® boat coating is slip-proof even if "ANTISLIP" is not used. However, the effects of water or spray are unpredictable. "ANTISLIP" provides additional safety in working areas, e.g. around the mast, on the fore deck and near the windlass. Please see the User Guide for more details.

23. DRIPS AND DROPS

Carry a small spray bottle of COELAN THINNER to help in removing inadvertent drips and drops on non-coating surfaces or items. Please note: Thinners other than COELAN THINNER are not compatible.

24. WATERLINE – ABOVE AND BELOW

COELAN boat coating is made for the use above the waterline only. Normally apply COELAN® 0,5 centimeter / 0.39 in. on top of the anti fouling. Waterline can be painted with COELAN® or a normal strong waterline paint. The COELAN product should not be applied below the waterline.

25. SILICONE

Do not use silicone based sealants underneath the coating. COELAN boat coating will not adhere to silicon based sealing compounds. However, and only when necessary, silicone compounds can be applied on top of COELAN coatings, along the edge or at seams or butts. Example product would be; WKT Sealing Compound. Check the manufacturer's guidelines and instructions. Run a trial or test to verify obtaining the desired results.

26. JOINT SEALING MATERIALS

The preferred sealants are polyurethane or polysulfide based. Some examples are: West Marine 8200, Boat Life Calk, Sikaflex 291, and 3M 101. Check the respective manufacturer's guidelines and instructions. Run a trial or test to verify obtaining the desired results.

27. THINNER

Use only COELAN THINNER. Thin 10% to 30% maximum. Do not thin the coatings in an excessive manner. This will compromise the chemical reaction and the finished result. Other products are not compatible.

28. SOLVENTS

Do not use any solvents to prepare the surface or in cleaning the coating after installation. Do not use furniture polishes or floor wax on the finished surface.

29. SURFACE PROTECTION

If there is a need to mask or protect adjacent surfaces; use the “blue” tape. (3M #2080 or equiv.) Remove the tape after the coating has cured approximately two hours.

30. REPAIR TO COATING

1. Small sections (approximately 3 in. X 3 in.) can be repaired by using a Stanley knife to cut out the damaged coating. Then sand and prime and coat per normal instructions. Build up several layers of coating to ensure minimum of 1.0 mm / 0.039 in. thickness and smooth transition onto adjacent existing coating. Refer to the User Guide.

2. For larger areas requiring repair; use a hot air gun to soften the coating and then peel up with the aid of a putty knife or spatula. Re-sand, re-prime and build up several layers of coating to ensure minimum of 1.0 mm / 0.039 in. thickness and smooth transition onto adjacent existing coating.

31. CONVERSIONS - METRIC CALCULATION

Please see also the automated METRIC CONVERSION CALCULATORS on our web site.

1 Liter	0,264 US-Gallon
1000 ml	1,057 US-qt.
1 US Gallon	3,785 Liter
1 US-qt.	946,353 ml
1 qm (square meter)	10,764 sq. ft. (square feet)
1 sq. ft. (square foot)	0,093 qm (square meter)
1 mm	0,039 inches
1 inches	25,40 mm or 2,54 cm
1 meter	3,281 feet
1 feet	0,305 meter

Container size	Equivalent
5 Liters	1,321 US-Gallon
3 Liters	0,793 US-Gallon
1 Liter	0,264 US-Gallon
1000 ml	0,264 US-Gallon
750 ml	0,198 US-Gallon
375 ml	0,099 US-Gallon

32. APPLICATION INSTRUCTIONS

Step by step APPLICATION INSTRUCTIONS are available on our web site for your convenience. Please select the applicable section. Hard copies of our User Guide booklet are also available upon request.

33. FAQ

If you have additional questions or need more specific advice, please refer to our FAQs list or see the specific APPLICATION INSTRUCTION which applies to your project.

DISCLAIMER [34.]

To the best of our knowledge, the technical information contained on this product information is reliable. As the product may be used in conditions that we cannot foresee, this advice is not legally binding. Furthermore, we reserve the right to make technical changes in line with product development. On publication of revised instructions for use, any existing technical information shall be invalid. For any queries, you may contact our special technical advice service. Agreements and warranties must in principle be in writing. Verbal agreements should therefore be confirmed in writing. In addition, our terms of delivery and payment apply.

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