

RAFFAELLO ECO

TECHNICAL DATA SHEET

Product description

Solvent-based paint for underwater ships, suitable for fresh and brackish water.

Raffaello Eco can be applied on all substrates, including aluminium. It is recommended for use on boats not faster than 35 knots.

Product information

Aspect	Matt	
Colour	Black .708, Deep Blue .512, Red Dutch .379, Red .375, Grey .065, White .153 <i>The colour of the paint after diving may be slightly different. Small tinting differences may occur between different production batches: in case mix them before the application.</i>	
Solids (by volume)	ASTM D2369	52 ± 2 %
Specific gravity	UNI EN ISO 2811-1	1,40 ÷ 1,44 g/cm ³
Flash point	UNI EN ISO 13736	30° C
Shelf life	2 years	
VOC (calculated average content)	ISO 11890-2/2006	398 g/l
Packaging	0,75 – 2,5 Lt	

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Application and use

SURFACE PREPARATION

Surfaces with old antifouling

Good condition: remove contaminants and any vegetation through high pressure wash with fresh water. Sandpaper with 120-180 grain paper. If the old antifouling is unknown or of a different nature apply a coat of an insulator like TICOPRENE.

Bad conditions: remove contaminants, possibly vegetation and non-adherent material through high pressure wash with fresh water. Sandpaper with 80-120 grain paper or with a slight sandblasting removing the old antifouling and paying attention not to damage the underneath paint system. Apply a coat of ADHERPOX or TICOPRENE primer onto the entire treated area before proceeding with the application.

New surfaces or brought to new

Fiberglass: Degrease the surface to be treated with solvent or with a suitable detergent. Wash with fresh water and remove any traces of oil and grease. All surfaces to be painted must be clean, dry and free of contaminants. Sandpaper with abrasive paper no. P180 - P220 and apply the primer onto the treated surface. Before proceeding with the application of the products, blow with clean and dry air to remove any residual sanding and dirt.

Steel: Wash with fresh water and remove any traces of oil and grease (in case wash with the specific solvent). All surfaces to be painted must be clean, dry and free of contaminants. Perform a sandblasting treatment of grade Sa 2½ or, after consultation with our technicians, mechanical cleaning degree St 3. Overcoat with the proper primer the treated metal before oxidizing principles are present. Before proceeding with the application of the products, blow with clean and dry air to remove any residual sanding and dirt.

Lead: Wash with fresh water and remove any traces of oil and grease (in case wash with the specific solvent). All surfaces to be painted must be clean, dry and free of contaminants. Waxing with large grain disks (mechanical cleaning) the surface layer of metal must be completely and uniformly renewed, removing any oxidation residue and coated with the primer provided on the same day of preparation. Be careful not to exceed the incision. Before proceeding with the application of the products, blow with clean and dry air to remove any residual sanding and dirt.

New wood: The moisture content of the support must not exceed 18%. All surfaces to be painted must be clean, dry and free of contaminants. Sandpaper with paper no. P80 - P120. Before proceeding with the application of the products, blow with clean and dry air to remove any residual sanding and dirt.

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APPLICATION METHODS

Application method	 
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Only professional

Application method		Conventional
		Pressure 3,5 bar
		Nozzle 1,7 – 1,9 mm
		Airless
		Pressure 150 bar
		Nozzle 0.3 – 0.6 mm
	 	

APPLICATION DATA

Thinner/Cleaning tools		6470
Dry film thickness per coat	Standard application range	40 - 60 µm
	Recommended	40 µm
Wet film thickness per coat	Standard application range	80 - 120 µm
	Recommended	80 µm
Theoretical coverage at the recommended thickness	Application range at the recommended thickness	10 m ² /litre
N° coats	2 coats for a seasonal protection. Apply an extra coat in areas subjected to higher consumption/friction	

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Recommended primers

ADHERPOX suitable for all substrates
TICOPRENE usable as primer on wood, iron, fiberglass or as insulator on old antifouling paints
(Adherglass, Unikote PRO)

Drying time

Temperature °C	10		15		20		30	
	Min	Max	Min	Max	Min	Max	Min	Max
Overcoating interval (50 µm)	18 hrs	N.L.	12 hrs	N.L.	6 hrs	N.L.	4 hrs	N.L.
Launching	24 hrs	1-6 months	18 hrs	1-3 months	12 hrs	1-3 months	8 hrs	1-2 months

N.B. The drying times and the overcoating intervals increase with higher thickness of the applied film.
Always check that the existing painting film is perfectly dry before applying a further product coat.

CONDITIONS DURING THE APPLICATION

To avoid the formation of condensation, the temperature of the surface should be at least 3 °C above dew point. During the application and curing the min. ambient temperature must not be lower than 10 °C or higher than 30 °C; substrate temperature must not be lower than 5 °C, since curing is remarkably reduced at lower temperatures.

Application is not advisable when relative humidity exceeds 80%. The term-hygrometric survey should be carried out near the surface to be coated. Make sure there is enough ventilation when the application takes place in closed areas.

Storage

It is recommended to avoid exposure to air and extreme temperatures. To maximize the shelf life in the can, it is good to check that the container is well closed during the storage and the temperature is between 10 °C and 35 °C. Avoid exposure to direct sunlight.

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Safety rules

Comply with the provisions set by the local health and safety at work regulations. Avoid contact with the skin, for example. Operate in well ventilated places and, if in closed areas, use vacuum cleaners, fans and air conveyors. During the application use appropriate protections (masks, gloves, glasses, etc.). Before using, read sections 7-8 of the SDS.

INSTRUCTIONS FOR THE DISPOSAL OF PRODUCTS AND PACKAGING

Empty packaging that contained products: Dispose of empty packaging according to the requirements of the waste disposal law, for example by taking them to the recycling center.

Packages containing the unused products: Dispose of the unused product in accordance with the law of disposal of such waste, for example by taking it to a recycling center, recycling of packaging is prohibited in this case. Do not empty into drains or watercourses. Product packaging must be kept indoor, and the temperature in the storage place must be between 10 °C and 35 °C. Do not expose to sunlight.

Notes

The values indicated in the present technical sheet can have slight variations from one batch to another. The applied product must not come in contact with water, chemicals or subjected to mechanical stress before the curing is complete. The wet film thickness is referring to the undiluted product. In case of dilution, this value increases. The above information is the result of accurate laboratory tests and practical experience, however, since the product is predominantly used outside the manufacturer's control, Boero Bartolomeo S.p.A. can only guarantee their quality. The information contained in this sheet may be subject to revision by the Company. For clarification, updates or further information, it is recommended to contact Boero Bartolomeo S.p.A. directly. The present datasheet annuls and replaces every other precedent to this one.