

RAFFAELLO PRO

TECHNICAL DATA SHEET

Product description

High quality antifouling paint with hydrophilic matrix. Due to the high copper content, high antifouling power is guaranteed. Effective in warm, temperate seas and mixed waters. Raffaello PRO has a controlled solubility and can therefore be conveniently used on both medium-speed boats and sailboats. It does not accumulate excessive thickness over time, consuming progressively during exercise. It complies with the IMO (AFS/CONF/26) antifouling requirements and contains active substances appropriate to the **BPR Regulation (Regulation (EU) No 528/2012)**.

Only white color is suitable for light alloy hulls.

Product information

Finish	Matt	
Colour	Black .708, Deep blue .512, Light blue .601, Red .375, Dark grey .713, White .153 <i>The colour of the antifouling 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	50 ± 2 %
Specific gravity	UNI EN ISO 2811-1	1,85 ÷ 1,95 g/cm ³ 1,65 ÷ 1,75 g/cm ³ (white)
Flash point	UNI EN ISO 13736	31 °C
Typical Shelf life		3 years
VOC (calculated average content)	ISO 11890-2/2006	383 g/l
Packaging	2,5 – 5 – 10 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. Sanding with 120-180 grain paper. If the old antifouling is unknown or of a different nature apply a coat of an insulator like Ticoprene AL.

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

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.





Lead: Wash with fresh water and remove any traces of oil and grease (in case washing 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.

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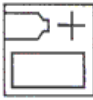
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APPLICATION METHODS

Professional use

Application method (spray application is permitted using individual protective devices in suitable environments)		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	Standard application range	40 - 60 µm
	Recommended	50 µm
Wet film thickness	Standard application range	80 - 120 µm
	Recommended	100 µm
Theoretical coverage at the recommended thickness	Application range at the recommended thickness	10 m ² /liter
N° coats	2 coats for a seasonal protection. Apply an extra coat in areas subjected to higher consumption/friction	
Recommended primers	ADHERPOX suitable for all substrates TICOPRENE AL usable as primer on wood, iron, fiberglass or as insulator on old antifouling paints (Adherglass, Unikote PRO)	

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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 5 °C and 35 °C. Avoid exposure to direct sunlight.

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Safety rules

Observe the provisions of DPR 303 and 547. 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 THE BIOCIDAL AND PACKAGING PRODUCT

Empty packagings containing biocidal products: Dispose of empty packagings according to the requirements of the waste disposal law, for example by conferring them in the recycling center. Packages containing the unused biocidal product: Dispose of the product not used in accordance with the law of disposal of such waste, for example by conferring it in a recycling center, recycling of packaging is prohibited in this case.

Do not empty into drains or watercourses.

INSTRUCTIONS FOR THE SAFE SECURITY OF THE BIOCIDAL AND PACKAGING PRODUCT.

Empty containers and containers still containing the biocidal product: Packaging must be disposed of as hazardous waste under the full responsibility of the holder of such waste. Do not empty into drains or watercourses.

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.

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Recommendations

After the application of the last coat the maximum launching period of the antifouling is one month; with top quality copper oxide based products and with the agreement with our technical staff, the launching time may extend up to 3 months, providing that the hull is protected from moisture, rain or atmospheric agents with plastic or similar material.



ANTI-FOULING PAINT STATEMENT

No. 2018CS011143/04

Issued under the provisions of the IMO International Convention on the Control of Harmful Anti-fouling System on Ships and Regulation (EC) No 782/2003 of the European Parliament and of the Council of 14 April 2003 on the prohibition of organotin compounds

by

RINA Services S.p.A.

for the following paint:

<i>Name of Manufacturer</i>	<i>Name of product</i>	<i>Code product</i>
Boero Bartolomeo S.p.A Via Macaggi 19 Genova - Italy	RAFFAELLO	PRO

<i>Colour of product</i>	<i>Product type</i>
Black, Red, Light Blue, Dark Blue, Medium Grey	Organotin-free self-polishing

THIS IS TO CERTIFY THAT:

the above identified antifouling paint complies with IMO International Convention on the Control of Harmful Anti-fouling System on Ships and Regulation (EC) No 782/2003 of the European Parliament and of the Council of 14 April 2003 on the prohibition of organotin compounds.

RINA is to be notified of any change in and modification of the product's formulation or specification that may affect the validity of this certificate.

Issued at: Genova

Date of issue: 28th March 2018

Date of expiry: 27th March 2023



RINA
(Franca Parisi)

