

September 2022

PROTIS

Technical sheet no. 29

SELF-POLISHING ANTIFOULING NEW GENERATION **TYPE OF PRODUCT: PROPERTIES:** PROTIS is a new generation tin-free antifouling with an erodible matrix for pleasure boats whose average speed does not exceed 35 knots. PROTIS is easy to apply: Information With the brush Products Roll Pneumatic Airless The red PROTIS also contains copper and can be used in tropical waters. The PROTIS is suitable for all types of hulls, except aluminum hulls. PROTIS is applied on the epoxy undercoats EP211 IM409, EP 215HB, EP 215HB+, respecting the covering times. **COMPONENTS:** Monocomponent Thinner AF N° 10 **DILUTIONS:** Thinners BRUSHES AND ROLLS from 0% to 5% PNEUMATIC GUN from 5% to 10% AIRLESS from 3% to 5% **SPECIFICATIONS:** MAP YACHTING Paint Systems SPEC Standards and Qualifications

The information contained in this edition is based on our current knowledge and experience. Given the many factors that can affect the transformation and application of our products, this information does not in any way release any user from his obligations to carry out his own checks and tests. Nor do they constitute a guarantee of certain characteristics of the products or of their adaptation to a specific need. Any description, photo, data etc. Is mentioned for information only. The most recent version cancels and replaces all previous versions. The most recent document is available on our website www.map-yachting.com, or directly from your distributor. The recipient of our products is required to ensure that all industrial property rights and all laws and regulations in force are respected.

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Surface Preparation



All surfaces to be covered must be free of dirt, pollution due to grease, water vapour, (refer to the dew point table) dust or mould. In order to ensure a perfect finish, and to obtain an excellent quality of surface tension, the interfaces or undercoats must be perfectly smooth, and free of drips or orange peel and sanded with very high quality abrasives to the FEPA standard.

PROTIS can also be used on primers, EP 211, EP 215 HB, EP 215 HB+ systems.

Manual



Mixing ratio

Dangerous. Respect the precautions for use. Use biocidal products with care. Carefully check the Safety Data Sheet (SDS) and label of each product before using it.

To respect the environment. Do not throw anything down the drain.

Allow products to acclimate to ambient site temperature before use. The base should be mixed thoroughly for at least 5 minutes using a clean disperser mounted on an explosion-proof stirrer. Then add the part of hardener by pouring it slowly and continuing to mix until a liquid with a smooth and homogeneous unctuous appearance is obtained. Since the two components are of different viscosity, the edges of the mixing container should be carefully scraped with a spatula. Mixing containers should have flat bottoms and perfectly smooth edges.







Duration

Viscosity initial of application (at 23°C)

Remark

None at 20°C

None AFNOR Cup n°4

The viscosity should be checked using AFNOR cup no. 4 and readjusted if necessary. A viscosity check is recommended every hour. Do not forget to mix well after each readjustment by diluting. Viscosity measurements are provided for guidance only and should not be used as quality control parameters.





Shelf life of the mixture at 20°C

None



Remark

Film weight for 100µm dry black 333g/m²



Dry film thickness

 $100 - 120 \mu m$

Applications & Recommendations



Conditions

Temperature: 15 - 17°C 20 - 25°C Hygrometry: 30 - 65% 40 - 70%



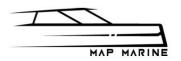
Note

The quality of application of all coatings will be influenced by the spray equipment chosen and by the temperature, humidity and airflow of the paint application area. When first applying the product, it is recommended that test panels be prepared to identify the best equipment settings to use to optimize the performance and appearance of the coating. PROTIS can be applied under conditions outside the limits indicated. Care should be taken to ensure a satisfactory result. Please contact your MAP YACHTING Paint Systems technician to determine proper application techniques and choice of thinners when environmental conditions are outside the recommended range.



Remark

The quality of the coating can be degraded by humidity during the launch, a wait of at least 12 hours at 20°C is recommended.





Materiel

Pressure pot Gun:

AZ1/ IWATA WS200SP / WS200FT / W200G2P

Nozzle + Needle: 1.6mm to 2mm Paint flow: 170 - 280 ml/min

Air cap: G2P / WS-200SP-01 / WS-200FT-01 / WS- 200FT-02

Gun pressure: 2.5 - 3.0 Bars

Fluid pressure: 1 Bar

Gravity gun

Pistol: AZ3 /IWATA WS400 / W400 / W400WB / W400 BELLARIA

Nozzle + Needle: 1.8 mm to 2.5mm

Paint flow: 140 - 250 ml/min Air cap: LV2 / BA4-1 / WB1 / WBX

Gun pressure: 1.8 – 2.5 Bars Airless

Nozzle: 0,021 - 0,025 mm Pressure: 100 - 200 Bars

Electrostatic gun Nozzle: NC Pressure: NC



Name of lying down

2 coats of 50-60 µm dry



Cleaning the material

Do the first cleaning with cleaning thinner (noble solvent without water and not recycled) and finish cleaning with the application solvent of the MAP YACHTING Paint Systems system.



Physical properties		USE LI	MIT TEMPERATURE :	+100 °C
	Time to Drying (at 23°C – 40 to 60% RH)	Drying time given for 50μ m dry:		
		Temperature	Dry to the touch	Masking
		20°C	3 hours	24 hours
	Recovery (at 23°C – 40 to 60% RH)	Overcoating without Sanding by itself given for $50\mu m$ dry (in Spray) : Temperature Minimum Maximum		
		20°C	3 hours	Consult us
M ²	YIELD THEORETICALLY	4 m² / L for 80μ m dry (without loss, depends on the colors)		
<u>kg</u> <u>Iμm</u>	Dry extract in Volume you Mixed	49 +/- 3%		
	Density of Mix at 20°C	1.16 +/-0.05% for white		
voc	Compounds organic Volatiles	The VOC content of this product, ready to use, is a maximum of 500 g/l. The European VOC limit values in the ready-to-use product (category IIAi) are 500 g/l maximum in 2010.		





ASPECT (at 60°)

Satin - Matt



Colors

Similar to the RAL color chart:

Red 3011 - White 9010 - Black 9004

- Navy Blue 5003 Light Blue 5009 - Green 6016 - Gray 7001



Flash point

Bases: 23°C <= PE <= 55°C



Storage

Store the product in a dry place and at a temperature between + 10°C and + 25°C according to the specifications of MAP YACHTING Paint Systems. Store in original unopened containers. Storage temperature may vary depending on specification requirements. Refer to container label for specific information on storage time.

Lifetime +10°C to 25°C

The information is given for closed containers in the original packaging, i.e. 24 months according to the commercial specifications of MAP YACHTING Paint Systems for the PROTIS base. Shelf life may vary due to specification requirements. Refer to container label for specific shelf life information.

Safety instructions

Comply with all local safety, disposal and transportation regulations. Carefully check the Safety Data Sheet (SDS) and label of each product before using it.

Safety Data Sheets are available on request.

Publication date:

September 2022 - ONLY FOR PROFESSIONAL USE -

Exhaustive and is based on the current state of our knowledge and on the laws in force: anyone using the product for purposes other than those specifically recommended in the data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended use does so at its own risk. It is always the responsibility of the user to take all necessary measures to meet the requirements set by local rules and legislation. Always read the Material Data Sheet and Technical Data Sheet for that product, if available. All advice we give or statements we make about the product (whether in this data sheet or elsewhere) are correct to the best of our knowledge, but we have no control over the quality or condition of the substrate or on the many factors affecting the use and application of the product. Therefore, unless we agree otherwise in writing, we accept no liability whatsoever for the performance of the product or for any loss or damage arising from the use of the product. All products supplied and technical advice given are subject to our terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to change from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check that this data sheet is up to date before using the product. **Brand names mentioned in this data sheet are registered trademarks or licensed to:**