
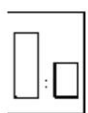



EPOXYGUARD IM 409

Technical sheet no. 44

Editing September 2022

<p>TYPE OF PRODUCT :</p>	<p>MOISTURE TOLERANT HIGH SOLID EPOXY COATING</p>
<p>PROPERTIES :</p>  <p>Information Products</p>	<p>EPOXYGUARD IM 409 is the result of the latest technological innovations in chemistry: Very high anti-corrosion protection Flexible coating High dry extract (> 85%). Applicable in high thicknesses with AIRLESS (600µm wet without dripping). Can be applied by roller, brush or pneumatic gun (350 to 400µm per coat). Can be applied on a damp, non-dripping surface and in difficult conditions (10°C and 85% humidity) – The ambient temperature must not be below 5°C. Polymerizes when immersed in fresh water, brackish water or sea water. Can be immersed 30 minutes after application. Very nice glossy appearance and excellent stretch of the film. M1 classification on Steel. EPOXYGUARD IM 409 is ideal for the treatment and anti-corrosion protection of: Hulls and steel barge hulls. Hulls and interiors or bilge bottoms of steel boats, as it can be applied directly after abrasive blasting (SA 2.5 Minimum – SA 3 recommended). Protection and treatment of bilges, steel, aluminum or composite ballast. Protection in preventive or curative treatment of osmosis on polyester composites. Protection of the underside of boats in polyester composites, epoxy, molded wood, epoxy CP, etc. Primer for the protection of wooden hulls in classic planking, topsides, undersides, decks, interiors, etc. Can be used as a coating at the bottom of the mold (contact us).</p>
<p>COMPONENTS:</p>  <p>Hardeners Thinners</p>	<p>EPOXYGUARD IM 409 HARDENER EXISTS IN A TROPICALIZED VERSION* (*Consult us)</p> <p>Thinners</p> <p>Thinners EP N°17</p> <p>DILUTIONS:</p> <p>ROLLS from 10% to 15% PNEUMATIC GUN from 15% to 20%</p>
<p>SPECIFICATIONS :</p>  <p>Standards and Qualifications</p>	<p>MAP YACHTING <i>Paint Systems</i> SPEC</p> <p>M1 classification on Steel*. (*Consult us)</p> <p>For the latest missing updates, please check with us at sales@map-yachting.com</p>

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.

Surface Preparation



All surfaces to be covered must be free of dirt, pollution due to grease, water vapour, dust or mold and cleaned with SURFACE CLEANER D25.

Steel: all sheet metal work will be completed before the start of surface preparation work. Excess welds will be eliminated, sharp edges rounded off. Eliminate oils and greases, alkaline deposits and soluble salts. Abrasive blast (according to ISO 8501.1-1988) to degree Sa 2.5 roughness BN 10a of Rugotest n°3 (Ra 12.5 μm). Dust carefully with a vacuum cleaner.

EPOXYGUARD IM 409 should be applied over a compatible system such as EP 211 or directly over aluminum, cast iron, galvanized steel, composites, wood or CP, concrete, or clean blasted steel according to Steel Structures Painting Council SP10 standards or Swedish standard* standard SA 2.5, minimum, SA 3 is recommended.

The minimum configuration of the steel surface after sandblasting should be 14μm in depth and slightly rough in nature. For aluminium, blank sweeping with fine abrasive or pickling with METONET followed by rinsing with clear water. Surfaces must be free of sanding dust.

For any other type of surface preparation, consult our technical department. EPOXYGUARD IM409 can be covered directly with PU77, PU88 UVR, PU99, PU320, PU380 lacquers or with EPU221, EP215HB+, EP215 HB, PU225, PU228 undercoats. (*Consult us)

Manual



Mixing ratio

Volume (ml): : **3** Base / **1** Hardener

Weight (gr): **100 (gr) Base** **20 (gr) Hardener**

Allow products to acclimate to ambient site temperature before use. 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 drying

Nothingness



Viscosity initial of application (at 23°C)

47s at 20% dilution



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Shelf life of the mixture at 20°C

Temperature	Lifetime of the mixture
10°C	1 hours 30 minutes
20°C	1hours
30°C	30 minutes



Remark

It is advisable to check the viscosity of the Base + Hardener mixture, if the system thickens, do not use it any more and prepare a new mixture.



Dry film thickness

RECOMMENDED THICKNESS PER COAT:

From minimum 250μm to maximum 400μm

Applications & Recommendations



Conditions

Hardeners : EPOXYGUARD IM 409 HARDENER

Temperature: 5°C– 30°C

Hygrometry : 30% – 85%



Note

The quality of application of all coatings will be influenced by the application equipment chosen and by the temperature, humidity and shape of the application area. When first applying the product, it is recommended to prepare test panels to identify the best application settings to use to optimize system performance and appearance. EPOXYGUARD IM 409 cannot 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 media when environmental conditions are outside of the recommended range.



Remark

Optimum application conditions are 15°C to 25°C for 50% to 70% relative humidity.

Do not apply below 5°C and above 30°C.

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Materiel

Pressure pot
 Pistol : AZ1/ IWATA WS200SP / WS200FT / W200G2P
 Nozzle + Needle: 1.8mm to 3.5mm
 Paint flow: 170 - 280 ml/min
 Air cap: G2P / WS-200SP-01 / WS-200FT-01 / WS-200FT-02 Gun
 pressure: 2.5 – 3.5 Bars
 Pressure Product: 1-1.5 BarS
 Gravity gun
 Pistol : AZ3 /IWATA WS400 / W400 / W400WB / W400 BELLARIA
 Nozzle + Needle: 1.8 mm to 3.5mm
 Paint flow: 140 - 250 ml/min
 Air cap: LV2 / BA4-1 / WB1 / WBX
 Gun pressure: 2.5 – 3.5 Bars
 Airless 65/1*
 Nozzle: 0,021 - 0,023 mm
 Pressure: 200 - 250 Bars
 *Consult us
 Roll
 Finishing foam
 Lacquer in finish or intermediate 10-12mm bristles when filling



**Name of
 lying down**

2 coats of 250µm dry to 300µm dry



**Cleaning the
 material**

To clean the tools, use cleaning thinner, acetone, rubbing alcohol, epoxy thinner EP N°17 or EP N°3.

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Physical properties

USE LIMIT TEMPERATURE :

+90 °C



Time to Drying (at 23°C – 40 to 60% RH)

Drying time given for 250µm dry:

Temperature	Dry to the touch	Dry hard
10°C	14 hours	24 hours
20°C	5 hours 30 minutes	5 hours 30 minutes
30°C	3 hours	4 hours

Recovery (at 23°C – 40 to 60% RH)

Temperature	Minimum	Maximum
10°C	16 hours	Not critical
20°C	4 hours 30 minutes	Not critical
30°C	3 hours	Not critical



YIELD THEORETICALLY

2,1 m²/ l for 400µm dry - 1,4 m²/L for 600µm dry



Dry extract in Volume you Mixed

85% +/- 3% (Iso 3233) and by weight: 90.15% +/- 2%

Density of Mix at 20°C

1.56 +/- 0.05 g/cm³



Compounds organic Volatiles

EU limit value for this product (cat. A/j): 500 g/l (2010)
This product contains a maximum of 310 g/l of VOC

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ASPECT
(at 60°)

Bright



Colors

White or Black and colors from the RAL & AFNOR color charts



Flash point

Base: PE > 100°C Hardener: 96.00°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 OEM 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 base, 24 months for the hardener. In tropical conditions, contact us.

Shelf life may vary due to OEM 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:**