

# TOPCOAT PU 320

Technical sheet no. 27

Editing September 2022

TYPE OF PRODUCT :

## ACRYLIC-POLYESTER POLYURETHANE LACQUER

### PROPERTIES :



Information  
Products

TOPCOAT PU 320 finishing lacquer has been specially formulated to provide protection and an exceptional quality of finish in the fields of aeronautics and yachting.

TOPCOAT PU 320:

After polymerization, it offers an exceptional tautness and depth

Keeps its new appearance over time, and a permanent wet appearance.

Retains great flexibility over time at 60% elongation.

Offers the applicator very easy application, by brush, pneumatic or electrostatic gun.

Buffing and touch-ups depending on color possible after 7 days at 23°C for 60µm dry.

TOPCOAT PU 320 offers exceptional performance and resistance over time:

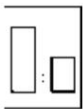
to UV, UVA and UVB (high altitude) chalking.

to physical aggressions such as impacts, shocks, chafing, abrasions and scratches.

to chemical attacks such as SKYDROL type hydraulic oils or Kerosene.

TOPCOAT PU 320 offers exceptional performance in color and gloss retention even with violent temperature variations.

### COMPONENTS:



Hardeners

Thinners

Topcoat Hardener 320/360

Topcoat Hardener 320/360 Brush

Topcoat Hardener 320/360 Brush Extra Slow

PU n° 2 Spray Standard

PU n° 4 Slow Spray or Winter Brush

PU n° 7 Extra slow brush

PU No. 702 Accelerator

PU No. 207 Speed bump

PU No. 212 Touch up

### DILUTIONS:

PNEUMATIC GUN from 10% to 25%

BRUSH or ROLLER from 20% to 40%

### SPECIFICATIONS :



Standards and  
Qualifications

MAP YACHTING *Paint Systems* SPEC

Aeronautics BMS 10-60 H -- MIL C 83286

Aerospace NT 10113 and 10012 -- AIRBUS TNA 10028

For the latest missing updates, please check with us at [sales@map-yachting.com](mailto:sales@map-yachting.com)

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](http://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, (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.

To obtain perfect cohesion at the interface between the lacquer and the undercoats, TOPCOAT PU 320 lacquer must be applied to PORE FILLER PU225HB or PU228HB, previously sanded and cleaned with SURFACE CLEANER D25.

TOPCOAT PU 320 lacquer can also be used on EP215HB EP215HB+ and INTERFACE EPU 221 which performs several functions, including ensuring a good EPOXY-PU bonding interface, also checking the quality of the support at paint after surface preparation.

## Manual



Report of  
mixed

Volume (ml) : 1 Base / 1 Spray Hardener  
Volume (ml) : 2 Base 1 Brush 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  
dying

15 minutes at 20°C



Viscosity  
initial  
of application  
(at 23°C)

13s to 15s AFNOR Cup n°4



Remark

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**Shelf life of the mixture at 20°C**

6 hours



**Remark**

Information is given for the hardener in spray version.



**Dry film thickness**

60 – 100 microns (μm)  
Depending on the color, to obtain an adequate finish.

## Applications & Recommendations



**Conditions**

<u>Hardeners :</u>	<b>320/360 Spray</b>	<b>320/360 Brush</b>	<b>320/360 Brush Extra Slow</b>
Temperature:	17 – 25°C	15 – 25°C	15 – 35°C
Hygrometry :	40 – 70%	30– 65%	30 – 65%



**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. TOPCOAT PU 320 can be applied in 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**

Using compounds for polishing may tend to dull or lighten darker colors. TOPCOAT 360 UVR or POLYCLEAR PU 630 UVR are recommended in this case.

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#### Materiel

Pressure pot  
 Gun : IWATA WS200SP / WS200FT / W200G2P  
 Nozzle + Needle: 0.8mm to 1.2mm  
 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  
 Pressure Product: 1 Bar  
 Gravity gun  
 Gun : IWATA WS400 / W400 / W400WB / W400 BELLARIA  
 Nozzle + Needle: 1.2 mm to 1.4mm  
 Paint flow: 140 - 250 ml/min  
 Air cap: LV2 / BA4-1 / WB1 / WBX  
 Gun pressure: 1.8 – 2.5 Bars  
 Airless  
 Nozzle : 0,011 - 0,013 mm  
 Pressure : 100 - 200 Bars  
 Electrostatic gun  
 Nozzle : 1.2 – 1.8 mm  
 Pressure : 3.5 - 5 Bars



#### Name of lying down





Do not "paint to try to cover" when applying the 1st coat.  
 Apply in 3 coats a wet film, for a time of 45 minutes minimum of evaporation at 23°C for the 1st coat. The final 2° and 3° coats must be closed, smooth and homogeneous with an overcoating time of 1h to 1h30 at 23°C between coats.



#### 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.

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Physical properties		USE LIMIT TEMPERATURE :	-60°C to +120°C
	<b>Time to Drying</b> (at 23°C – 40 to 60% RH)	Drying time for 60µm dry 320/360  (Spray Hardener) Dust free: 1 hour Touch dry: 8 hours  Maskings: 16 to 18 hours. Total crosslinking: 7 days	
	<b>Recovery (at 23°C – 40 to 60% RH)</b>	Minimum 1 hour  30 minutes TOPCOAT PU 320 can be coated without sanding within 72 hours. If the drying time is exceeded, contact us. TOPCOAT PU 320 is recoatable within 7 days when sanded with P400 sandpaper and properly cleaned and degreased.	
	<b>YIELD</b> THEORETICALLY	9.3 m <sup>2</sup> /l for 40 µm dry (without loss)	
	<b>Dry extract in Volume you Mixed</b>	37 +/- 2%	
	<b>Density of Mix at 20°C</b>	1.13 +/-0.05% (Tint and color dependent)	
	<b>Compounds organic Volatiles</b>	Base: 510.00 g/l Hardener: 688.00 g/l Brush hardener: 488.00 g/l Extra slow brush hardener: 484.00 g/l	

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**ASPECT**  
(at 60°)

Gloss + 95GU\*                      Satin 15-20GU\*                      Matt 0-5GU\*  
\*GU= Gloss unit



**Colors**

According to the RAL CLASSIC / AFNOR / NCS color charts (All colors possible on order)



**Flash point**

Bases: 23 ≤ PE ≤ 55 °C  
Brush hardener: 23 ≤ PE ≤ 55°C  
Extra slow brush hardener: 23 ≤ PE ≤ 55 °C  
Hardener: PE < 23°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. 48 months according to the commercial specifications of MAP YACHTING Paint Systems for the TOPCOAT PU 320 base and 24 months for the 320/360 catalysts. 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:**