

# TECHNICAL SPECIFICATION

## N° AR12R/20

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Under water area  
and appendages  
**ALUMINIUM**



**HARD ANTIFOULING  
PROFESSIONAL RACING**  
**DRY DOCKING INTERVAL**  
🕒 12 mois

<b>Specification N°</b>	AR12R/20	<b>Désignation</b>	Under water area and appendages ALUMINIUM
<b>Original emission</b>	September 2018	<b>Application method</b>	Roller or brush
<b>Brings up-to-date origin</b>	September 2020	<b>Antifouling</b>	Hard Antifouling Professional Racing
<b>Writer</b>	S. Llorens	<b>Dry Docking Interval</b>	12 mois

# TECHNICAL SPECIFICATION N° AR12R/20

## Under water area and appendages ALUMINIUM

### Position under water area and appendages

### Under water area and appendages ALUMINIUM

### 🕒 DRY DOCKING INTERVAL 12 months ▶ HARD ANTIFOULING PROFESSIONAL RACING

### Surface preparation

All under water area to be by high-pressure fresh water cleaned (min 250 bar) to remove salts and contamination. Abrasive sweep blasting with mineral abrasive to an evenly flattened surface with a dense profile of specified Rz-value and all possible white rust formation and any anodizing removed. Clean thoroughly and allow to dry completely.

### Application method



### Roller or Brush

Steps	Code	Product	Color	Coats	DFT per coat (μ)	WFT per coat (μ)	Theoretical spreading rate (m²/L)	Overcoating 23°C		Overcoating 15°C		Overcoating 10°C		Thinner
								Min.	Max.	Min.	Max.	Min.	Max.	
1	EPWHITE	PROFESSIONAL EPOXY PROTECT	WHITE	FC or TU	60	120	9	3h	1 month	8h	1 month	12h	1 month	ETCLEAR - 5%
	EPWHITE	PROFESSIONAL EPOXY PROTECT	WHITE	FC or TU	60	120	9	3h	1 month	8h	1 month	12h	1 month	ETCLEAR - 5%
2	EPGREY	PROFESSIONAL EPOXY PROTECT	GREY	FC or TU	60	120	9	3h	1 month	8h	1 month	12h	1 month	ETCLEAR - 5%
	EPGREY	PROFESSIONAL EPOXY PROTECT	GREY	FC or TU	60	120	9	3h	1 month	8h	1 month	12h	1 month	ETCLEAR - 5%
3	EPWHITE	PROFESSIONAL EPOXY PROTECT	WHITE	FC or TU	60	120	9	3h	1 month	8h	1 month	12h	1 month	ETCLEAR - 5%
	EPWHITE	PROFESSIONAL EPOXY PROTECT	WHITE	FC or TU	60	120	9	3h	1 month	8h	1 month	12h	1 month	ETCLEAR - 5%
4	PPGREY	PROFESSIONAL PRIMER PROTECT	GREY	FC or TU	50	140	8,3	3h	1 month	3h	1 month	6h	1 month	AFTCLEAR - 5%
5	RBLACK RNAVY RWHITE RRED	PROFESSIONAL RACING	BLACK NAVY WHITE RED	FC	50	100	8,8	6h	*	14h	*	16h	*	
	RBLACK RNAVY RWHITE RRED	PROFESSIONAL RACING	BLACK NAVY WHITE RED	FC	50	100	8,8	*	*	*	*	*	*	
6	UNDOCKING							Drying time before undocking						
								23°C - 8h		15°C - 24h		10°C - 28h		

\* No maximum overcoating interval, but after prolonged exposure to polluted atmosphere, remove accumulated contamination by high pressure fresh water cleaning.



If necessary, Professional Filler can be applied between the first and second coats of primer.

# PROFESSIONAL EPOXY PROTECT

Two-component epoxy primer

## TECHNICAL DATA SHEET

### DESCRIPTION

Quick-drying, high performance epoxy primer that is easy to apply. It is suitable for substrates requiring a very high level of protection, above and below the waterline (steel, aluminium, composites, carbon and wood). Can be used on zones both in and out of the water. Optimised formula to allow for a longer period between coats.

### Thinner / Cleaner

**Thinner:** PROFESSIONAL EPOXY THINNER

**Cleaner:** Use PROFESSIONAL EPOXY THINNER for equipment cleaning.

### Surface conditions



**Steel / Alloy / Iron / Lead / Aluminium:** For Aluminium, Lead and Zinc/Galvanised Steel. Degrease with PROFESSIONAL DEGREASER. Sand using 60-120 grade paper. For Steel, grit blast to Sa 2.5 - near white surface metal. Clean thoroughly and allow to dry completely.

**Wood/Plywood:** Degrease with PROFESSIONAL DEGREASER. Sand smooth with 80-180 then 280 grade paper. Remove sanding dust by brushing or dusting. Wipe down with PROFESSIONAL DEGREASER and allow to dry completely.

**GRP, EPOXY, CARBON FIBRE:** Degrease with PROFESSIONAL DEGREASER. Sand using 180-220 grade paper. Clean thoroughly and allow to dry completely.

### INSTRUCTIONS FOR USE

#### Mixing

**Mixing** Stir or shake individual components thoroughly. Add Curing Agent to the Base, stir and leave for 10 minutes to allow dispersion.

**Other** For maximum performance to be achieved, the curing temperature should be above 10°C.

### A + B

#### Mixing ratio

3/1



#### Dry Film Thickness (DFT)

60 microns dry by roller/brush (120 microns wet)

130 microns dry by airless spray gun (290 microns wet)

### RECOMMENDATIONS



#### Conditions

**Temperature:** 15-35°C (10°C min)

**Ventilation and Humidity Control:** Ensure adequate ventilation during use



#### Application Methods

Airless spray gun, roller, brush.

**Airless spray gun:** Pressure 165 bar. **Tip Size:** 1880-2680

#### Number of Coats







1-5 by roller depending on substrate and use

1-3 by airless spray gun depending on substrate and use

# PROFESSIONAL EPOXY PROTECT

Two-component epoxy primer

## PHYSICAL PROPERTIES

	Drying Times (touch dry)	<b>1 hour:</b> at 23°C	
	Overcoating Times (with itself)	<b>APPLICATION WITH ROLLER OR BRUSH</b>	<b>APPLICATION WITH AIRLESS SPRAY GUN</b>
		<b>3 hours min – 1 month max:</b> at 23°C <b>8 hours min. – 1 month max:</b> at 15°C <b>12 hours min.– 1 month max:</b> at 10°C	<b>16 hours min – 1 month max:</b> at 23°C <b>24 hours min. – 1 month max:</b> at 15°C <b>30 hours min.– 1 month max:</b> at 10°C
	Overcoating Times (with Polishing Antifouling Professional Explorer, Hard Antifouling Professional Racing ou Professional Epoxy Protect)	<b>3 hours min. – 7 hours max:</b> at 23°C* <b>6 hours min. – 8 hours max:</b> at 15°C* <b>10 hours min. – 24 hours max:</b> at 10°C*  <i>*without sanding. If exceeded, apply one coat of PROFESSIONAL PRIMER PROTECT and PROFESSIONAL EXPLORER or PROFESSIONAL RACING.</i>	<b>6 hours min. – 14 hours max:</b> at 23°C* <b>8 hours min. – 18 hours max:</b> at 15°C* <b>14 hours min. – 30 hours max:</b> at 10°C*  <i>*without sanding. If exceeded, apply one coat of PROFESSIONAL PRIMER PROTECT and PROFESSIONAL EXPLORER or PROFESSIONAL RACING.</i>
	Theoretical spreading rate	<b>By roller/brush:</b> 9m <sup>2</sup> /L per coat <b>By airless spray gun:</b> 3.3m <sup>2</sup> /L per coat	
	Volatile Organic Compounds	<b>VOC (As Supplied):</b> 464 g/L	
	Colours	<b>Base (Component A):</b> Grey or White <b>Curing (Component B):</b> Clear	
<b>GENERAL INFORMATION</b>			
	Storage	Exposure to air and extremes of temperature should be avoided. For the full shelf life of this product to be realized ensure that between use the container is firmly closed and the temperature is between 5°C and 35°C. Keep out of direct sunlight. This product should be kept in securely closed containers.	
	Transportation	This product should be kept in securely closed containers during transport.	
	Compatibility / Substrates	Suitable for all listed substrates (cf Surface conditions). Do not apply over one pack products.	
	Shelf Life	2 years	
	Safety Precautions	Comply with all local safety, disposal and transportation regulations. Check the Material Safety Data Sheet (MSDS) and label of the individual products carefully before using the products. The MSDS's are available on our website or on request. The information given in this sheet is not exhaustive and can be modified when necessary. <b>Disposal:</b> Do not discard tins or pour paint into water courses, use the facilities provided. It is best to allow paints to harden before disposal. Remainders of this product cannot be disposed of through the municipal waste route or dumped without permit. Disposal of remainders must be arranged for in consultation with the authorities.	

# PROFESSIONAL PRIMER PROTECT

One-component tie coat primer

## TECHNICAL DATA SHEET

### DESCRIPTION

Quick-drying, one-component tie coat primer for application on all substrates in underwater zones. This primer is very easy to use, and can also be used as an insulating coat over a previous antifouling product whose type is not known. Apply one or more coats depending on the level of protection required. Can be used on underwater zones.

Thinner / Cleaner

**Thinner:** PROFESSIONAL THINNER  
**Cleaner:** PROFESSIONAL THINNER

Surface conditions



**Steel / Alloy / Iron / Lead / Aluminium:**

For Aluminium, Lead and Zinc/Galvanised Steel. Degrease with PROFESSIONAL DEGREASER. Sand using 60-120 grade paper. For Steel, grit blast to Sa 2.5 – near white surface metal. Clean thoroughly and allow to dry completely.

**Wood/Plywood:** Degrease with PROFESSIONAL DEGREASER.

Sand smooth with 80-180 then 280 grade paper. Remove sanding dust by brushing or dusting. Wipe down with PROFESSIONAL DEGREASER and allow to dry completely.

**GRP, epoxy, carbon fibre:** Degrease with PROFESSIONAL DEGREASER.

Sand using 180-220 grade paper. Clean thoroughly and allow to dry completely.

**OLD / AGED ANTIFOULING:**

**In Good Condition:** Remove loose material.

Wash down with fresh water. Allow to dry.

**In Poor Condition:** Remove.

### INSTRUCTIONS FOR USE

Mixing

Stir well before use.



Dry Film Thickness (DFT)

50 microns dry by brush/roller (140 microns wet)  
 70 microns dry by airless spray gun (210 microns wet)

### APPLICATION RECOMMENDATIONS



Conditions

**Temperature:** 15-35°C



Application Methods

Airless spray gun, roller, brush.  
**Airless spray gun:** Pressure: 211 bar. **Tip Size:** 2180-2680.






Number of Coats

1-6 by roller depending on substrate  
 1-4 by airless spray gun depending on substrate


# PROFESSIONAL PRIMER PROTECT

One-component tie coat primer

## PHYSICAL PROPERTIES

	Drying Times (touch dry)	<b>1 hour:</b> at 23°C
	Overcoating Times (with itself)	<b>3 hours minimum – 1 month maximum:</b> at 23°C <b>3 hours minimum – 1 month maximum:</b> at 15°C <b>5 hours minimum – 1 month maximum:</b> at 10°C
	Overcoating Times (with Polishing Antifouling Professional Explorer, Hard Antifouling Professional Racing ou Professional Epoxy Protect)	<b>3 hours minimum – 1 month maximum:</b> at 23°C <b>3 hours minimum – 1 month maximum:</b> at 15°C <b>6 hours minimum – 1 month maximum:</b> at 10°C
	Theoretical spreading rate	<b>By roller/brush:</b> 8.3m²/L per coat <b>By airless spray gun:</b> 4.4m²/L per coat
	Volatile Organic Compounds	<b>VOC (As Supplied)</b> 585 g/L
	Colours	Grey

## GENERAL INFORMATION

	Storage	Exposure to air and extremes of temperature should be avoided. For the full shelf life of this product to be realized ensure that between use the container is firmly closed and the temperature is between 5°C and 35°C. Keep out of direct sunlight. This product should be kept in securely closed containers.
	Transportation	This product should be kept in securely closed containers during transport.
	Compatibility / Substrates	Suitable for all listed substrates (cf Surface conditions). Do not overcoat with 2-component products.
	Shelf Life	2 years
	Safety Precautions	Comply with all local safety, disposal and transportation regulations. Check the Material Safety Data Sheet (MSDS) and label of the individual products carefully before using the products. The MSDS's are available on our website or on request. The information given in this sheet is not exhaustive and can be modified when necessary.  <b>Disposal:</b> Do not discard tins or pour paint into water courses, use the facilities provided. It is best to allow paints to harden before disposal. Remainders of this product cannot be disposed of through the municipal waste route or dumped without permit. Disposal of remainders must be arranged for in consultation with the authorities.

# HARD ANTIFOULING PROFESSIONAL RACING

High performance hard antifouling compatible with aluminium

## TECHNICAL DATA SHEET

### DESCRIPTION

High performance hard matrix antifouling product. Effective in moderate and aggressive fouling waters. Formula offers protection for up to 12 months. Can be sanded for a smoother finish for optimal speed in the water. Ideal for fast boats. Suitable for application on all substrates below the waterline, including aluminium (hull, propeller, thruster). Can be applied up to 6 months before launch.

### Thinner / Cleaner

**Thinning:** Thinning is not recommended. Antifouling performance can be compromised if correct dry film thickness is not applied. For spray application, PROFESSIONAL THINNER can be used to ease application.  
**Cleaner:** PROFESSIONAL THINNER

### Surface conditions



#### PREVIOUSLY ANTIFOULED SURFACE:

**In Good Condition** All fouling and contamination must be thoroughly removed including the leached layer. Use high pressure fresh water wash (3000 psi/207 bar) and/or scraping and wet sanding with typically 80/120 grade paper. Do not dry sand. If old antifouling is incompatible or unknown, seal with a suitable barrier/sealer coat.

**In Poor Condition** Remove all traces of antifouling.

**PRIMERS:** All preparation for bare substrates is covered on the appropriate primer datasheet.

**BARE GRP, EPOXY, CARBON FIBRE:** Prime with

PROFESSIONAL EPOXY PROTECT or PROFESSIONAL PRIMER PROTECT.

**STEEL/ALUMINIUM/WOOD:** Prime with

PROFESSIONAL EPOXY PROTECT or PROFESSIONAL PRIMER PROTECT.

### INSTRUCTIONS FOR USE

#### Mixing

Thoroughly stir until product is mixed to a uniform consistency before use.



#### Immersion Time

**8 hours minimum** at 23°C  
**24 hours minimum** at 15°C  
**28 hours minimum** at 10°C  
**Maximum 6 months**



#### Dry Film Thickness (DFT)

50 microns dry by roller/brush (100 microns wet)  
 100 microns dry by airless spray gun (200 microns wet)

### APPLICATION RECOMMENDATIONS



#### Conditions

**Temperature:** 15-35°C

**Ventilation and Humidity Control:** Ensure adequate ventilation during use. Substrate temperature should be 3°C above dew point and maximum 35°C.



#### Application Methods

Airless spray gun, roller, brush

**Airless spray gun:** Pressure 176-220 bar / 2500-3200 psi. **Tip size:** 517-521

#### Number of Coats

#### By roller/brush:

Apply 2 coats of 50 microns dry for 12 months (Total DFT of 100 microns)

#### By airless spray gun (Professional only)






Apply 1 coat of 100 microns dry for 12 months (Total DFT of 100 microns)

In all schemes, apply an extra stripe coat in areas of high wear such as chines, rudders, sterngear and any leading edges.


# HARD ANTIFOULING PROFESSIONAL RACING

High performance hard antifouling compatible with aluminium

## PHYSICAL PROPERTIES

	Drying Times (touch dry)	<b>30 minutes:</b> at 23°C
	Minimum Overcoating Times (with itself)	<b>6 hours:</b> at 23°C <b>14 hours:</b> at 15°C <b>16 hours:</b> at 10°C
	Theoretical spreading rate	<b>By roller/brush:</b> 10m <sup>2</sup> /L per coat <b>By airless spray gun:</b> 5m <sup>2</sup> /L per coat
	Volatile Organic Compounds	<b>VOC (As Supplied)</b> 424 g/L average <b>VOC (EU Solvent)</b> 298 g/Kg average EU Solvent Emissions Directive (Council Directive 1999/13/EC)
	Colours	Black Navy White Red True colour will develop after immersion

## GENERAL INFORMATION

	Storage	Exposure to air and extremes of temperature should be avoided. For the full shelf life of this product to be realized ensure that between use the container is firmly closed and the temperature is between 5°C and 35°C. Keep out of direct sunlight. This product should be kept in securely closed containers. To prevent premature failure, ensure the correct amount of paint is applied using the coverage as a guide. Product temperature should be minimum 5°C and maximum 35°C. Ambient temperature should be minimum 5°C and maximum 35°C.
	Transportation	This product should be kept in securely closed containers during transport.
	Compatibility / Substrates	Suitable for all listed substrates (cf Surface conditions) including suitably primed Aluminium/Alloy and Zinc-sprayed surfaces. Can be applied direct over most types of antifouling, provided they are in sound condition, with the exception of PTFE antifouling.
	Shelf Life	2 years
	Safety Precautions	Contains biocides. Antifouling should only be wet sanded. Never dry sand or burn off old antifouling. Comply with all local safety, disposal and transportation regulations. Check the Material Safety Data Sheet (MSDS) and label of the individual products carefully before using the products. The MSDS's are available on our website or on request. The information given in this sheet is not exhaustive and can be modified when necessary. <b>Disposal:</b> Do not discard tins or pour paint into water courses, use the facilities provided. It is best to allow paints to harden before disposal. Remainders of this product cannot be disposed of through the municipal waste route or dumped without permit. Disposal of remainders must be arranged for in consultation with the authorities.