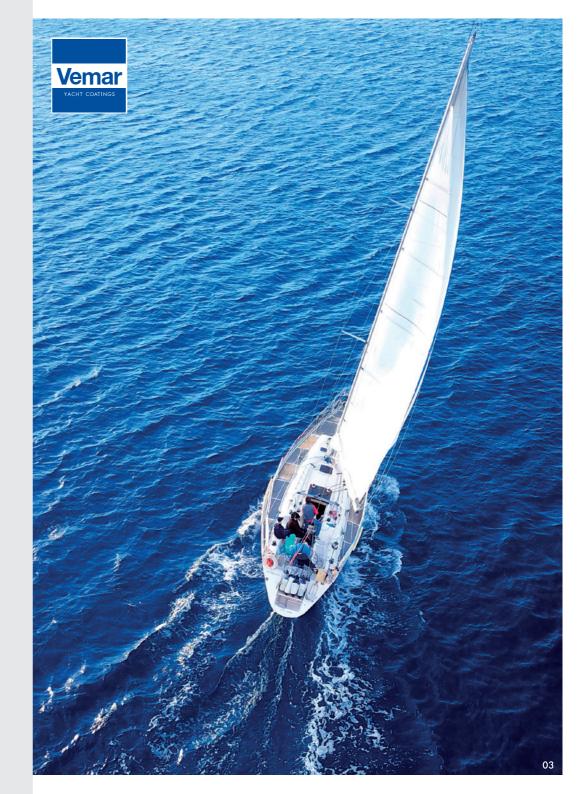
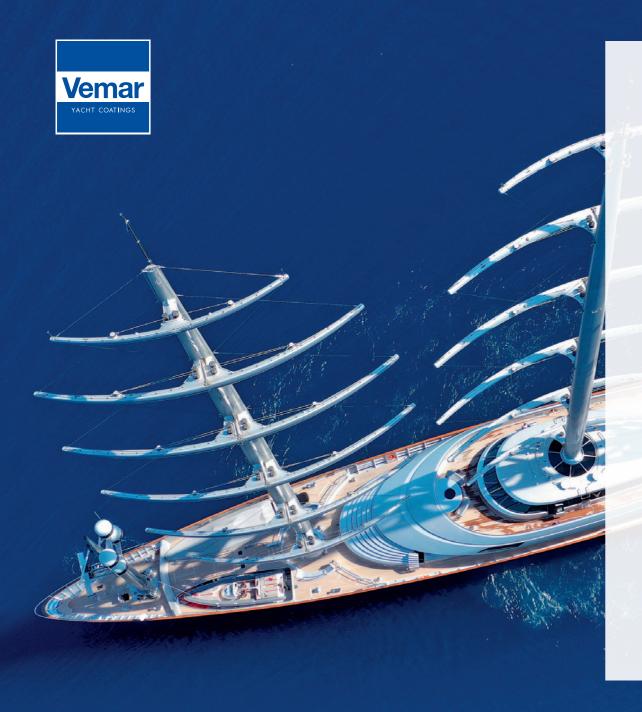


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WELCOME TO VEMAR'S WORLD

It is the bond with the endless sea, the calmness and the feeling of rendering freedom... Everything is always better comprehended when onboard, whether that's the power of the blowing wind that generates lift on a sailing boat or the furious acceleration of the engine on a motor boat, yachts offer us special moments and provide the shelter in which we are safe and calm as long as we take good care of them.

LISTEN TO YOUR BOAT NEEDS

A boat is always in need of maintenance. A demanding, time consuming and in most cases costy procedure. In order to achieve an excellent result, it is necessary to use high quality materials combined with the correct application techniques under suitable application conditions and always take into consideration your own safety.

THE TECHNICAL GUIDE

In the next pages, you will discover the procedures for the correct application techniques of VEMAR's products. Before commencing any application please go through this Technical guide and the relevant Product & Safety data sheets that you can find on our website and read carefully the given instructions and useful hints.

In case you have any questions or you need more information, instructions or guidance we are always by your side through VEMAR's qualified local representative.

Enjoy the journey!





ABOUT VEMAR

Vemar Yacht Coatings was born from the sea. It is the yachting segment of HB BODY Group. A company consisting of four leading brands in different sectors, with a presence in 75 countries all over the globe and many years of experience in developing, manufacturing, and selling good quality products.

Vemar's personnel are the most valuable asset and the most prominent ambassador of our company's culture for quality and service in all our activities.

OUR MISSION

To provide **trusted** and **efficient** solutions to boat lovers and professionals in the painting industry by establishing a **global** network of experts and offering **high-quality** and **cost-effective** products & services.

www.vemarcoatings.com



THE STEPS FOR AN EFFICIENT MAINTENANCE PROCEDURE

FOLLOW THE STEPS
IN THE FOLLOWING ORDER
AND CREATE A SUITABLE SUBSTRATE
FOR THE APPLICATION
OF VEMAR'S PRODUCTS

STEP 1



Lift the boat out of the water. Prior to commencing any works, hose down the surface with high- pressure fresh water to remove any salts or other contaminants. While the boat is out of the water, the hull attracts the contamination existing in the atmosphere. Frequent washing removes such contamination and becomes the initial step for a proper substrate for painting.

STEP 2



It is crucial to use a suitable degreaser in areas contaminated by oil & grease. After degreasing, hose down the surface with fresh water and make sure that the area is completely dry before the application of any product.

STEP 3



Remove all old non-well-adhering layers. This can be done by mechanical cleaning with tools such as disc & orbital sanders, by water jetting or by using suitable paint remover.



STEP 4

Use a P80 grit size sandpaper when sanding well-adhering paint layers below the waterline. It is recommended to wet sand the surface in order to avoid the dispersion of dust released during work. For areas above the waterline use a P240-P320 grit size sandpaper to prevent the creation of coarse scratches.



STEP 5

Dedust and wash down the surface with fresh water. Let the surface dry completely before applying any product. Use masking tapes to carefully mask the edges of the area you are going to paint and remember to remove the masking tapes immediately after the application of the last layer taking also into consideration the drying times of each product. Special care should be given when a two components product is being applied.



STEP 6

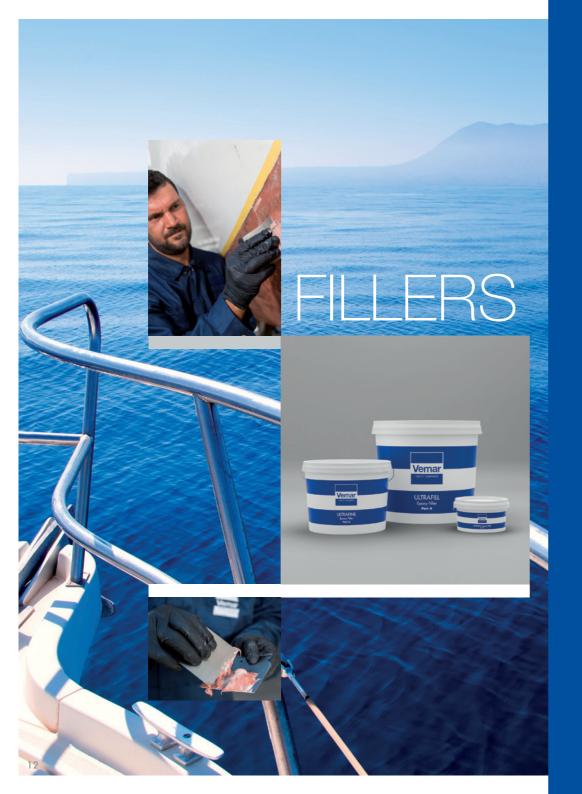
Plan the paint application of the full paint system according to the project's schedule, the temperature and the weather forecast. Keep always in mind the recoating intervals of the products according to their product data sheets and specification sheets. Avoid applying under strong wind, high humidity or in direct exposure to sunlight conditions.



STEP 7

Always follow the instructions as listed in the relevant product's data sheet before the application.







INTRODUCTION

WHAT IS A FILLER?

There are different types of fillers such as water-based, polyester based, epoxy-based etc. VEMAR recommends the use of epoxy fillers for the repair works of vessels due to their superior performance in the marine environment.

VEMAR's fillers offer, among others, excellent insulation properties due to their low-absorption characteristics and exceptional mechanical strength.

Epoxy fillers are designed for the repair of any hull imperfection caused by damage or constructive defect.

This type of products can be applied at a very high thickness and provide superb sanding properties. While fillers must be hard coatings in order to withstand damages, they must at the same time be flexible in order to absorb the hull vibrations and hence avoid cracking, especially when applied on large sailing yachts.

Before the application of epoxy filler on GRP hulls, an appropriate layer of epoxy primer should be applied on the surface, in order to enhance the prevention of the osmosis phenomenon.

The best sealing of epoxy fillers is achieved by the «sandwich method» which stands for the application of appropriate primers before and after the application of the epoxy filler.



ULTRAFILL

Two-component lightweight epoxy filler. A solvent-free easy to sand product. Ideal for overall fairing above and below the waterline without sagging.

Its special formulation offers superior mechanical strength while remaining flexible. Suitable for all types of substrate (steel, wood, GRP etc.)



ULTRAFINE

Finishing two-component epoxy filler. It may be applied on top of ULTRAFILL filler. After sanding it creates a velvet-like, pores-free surface. Ideal for the repair and prevention of the phenomenon of osmosis. Easy to sand.

After sanding, sealing the surface with a suitable VEMAR's primer is required. Applicable to all types of substrates (steel, wood, GRP etc.

	=				
Available packaging	0,5 L	3 L	10 L	Available sha	des
ULTRAFILL Part A	-			IVORY WHITE	mixture
ULTRAFILL Part B				BLUSH RED	LIGHT PINK

	_			
Available packaging	0,5 L	3 L	Available sha	ides
ULTRAFINE Part A	•	•	SAND YELLOW	mixture
ULTRAFINE Part B			OFF WHITE	LIGHT BEIGE

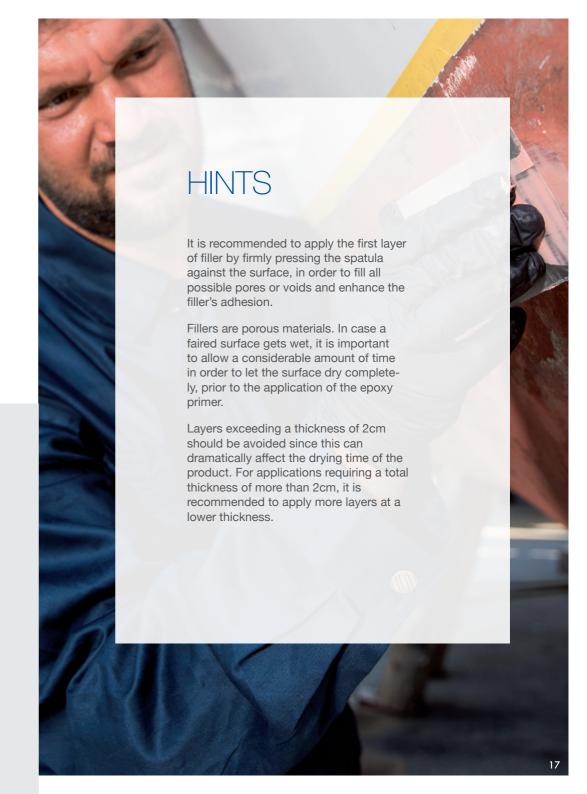
APPLICATION PROCEDURE

SURFACE PREPARATION

Prior to applying the filler, the surface should be primed, depending on the type of substrate, and free from dust, oil & grease or other petroleum products. Clean the surface carefully with a suitable detergent or degreaser and make sure that it is completely dry.

VEMAR's fillers quick application guide

Surface	Steel	Wood	Aluminium	GRP					
1. Cleaning	High pressure fresh	water & degreaser if	needed						
2. Preparation	Sanding (refer to rel	evant product's data	sheet)						
3. Preparation	Remove dust by ho completely	Remove dust by hosing down with fresh water and let the surface dry completely							
4. Application	1x VEMASHIELD	1x ALUSHIELD							
5. Application	(1 1)	as many layers as ne ess per layer)	cessary without exc	ceeding a 2 cm					
6. Application	ULTRAFINE								
7. Application	2x VEMASHIELD	2x ALUPRIME	2x ALUSHIELD						





PRIMERS /UNDER COATS



INTRODUCTION

WHAT IS A PRIMER / UNDERCOAT?

A primer/undercoat provides the grounds on which the finish coat will reveal its expected shiny and uniform appearance. It also provides the necessary protection for the different areas of a vessel against phenomena such as corrosion, osmosis, galvanic corrosion etc.

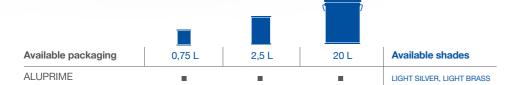
Options exist for one or two components products.

The ways in which they provide the desired protection differ and depend on their working mechanism such as the barrier, inhibitor or galvanic effect.



ALUPRIME

A fast drying, Vinyl based one component primer, reinforced with aluminium flakes for superior barrier properties. Used as a sealer and surface tolerant primer onto wood, epoxy primers and old existing antifouling.







VEMASHIELD

Two-component epoxy primer, with excellent anticorrosion properties and superb adhesion on GRP, wood, steel and aluminium. It can be used above and below the waterline providing exceptional barrier properties when applied on carbon steel vessels and as a part of an osmosis treatment scheme for GRP vessels. Contains zinc phosphate.





ALUSHIELD

Two-component epoxy primer, suitable for use above and below the waterline.

Contains aluminium flakes and offers excellent protection against the phenomenon of osmosis on GRP vessels, while it can be used as a tie coat for the application of antifouling, or a primer-intermediate coat for the application of compatible topcoats on all types of substrate.

			È	Ì	
Available packaging	1 L	4 L	0,25 L	1 L	Available shades
ALUSHIELD Part A	-	-			DARK SILVER, BLUE SILVER
ALUSHIELD Part B			-		TRANSPARENT YELLOW



VEMALUX

One component quick drying alkyd undercoat for one component topcoats. To be used above the waterline. Easy application and sanding. Applied by brush/roller.

Available packaging 0,75 L

Available shades

VEMALUX

LIGHT GREY



ROBUSTO

Two component polyurethane undercoat is used as a base prior to any topcoat application above the waterline. Seals and fills to provide a smooth surface for topcoat application.

Available packaging	0,50 L	0,125 L	Available shades
ROBUSTO Part A			GREY WHITE
ROBUSTO Part B			TRANSPARENT



APPLICATION PROCEDURE

SURFACE PREPARATION

Prior to applying the primer, the surface should be free from dust, oil & grease or other petroleum products. Clean the surface carefully with a suitable detergent or degreaser and make sure that it is completely dry.

For areas below the water, the line follows the procedure in the below order.

Application on new substrate

Surface type	Wood	Steel	GRP	Aluminium	Propellers
Surface type	vvood	Steel	GNF	Aluminum	Fiohelieiz
1. Cleaning	High pressure f	resh water & degre	easer if needed		
2. Surface preparation	Sand with P120-P150	Sanding	Sand with P120-P150	Sanding	Sand with P150-P180
3. Surface preparation	Remove dust by	hosing down with	fresh water and	et the surface di	ry completely
4. Application with roller	2x VEMASHIELD	2x VEMASHIELD	2x ALUSHIELD	2x ALUSHIELD	2x VEMASHIELD
5. Application with roller	1x ALUPRIME				
6. Application with roller	2-3x ANTIFOUL	ING			

Application on old painted surface

You should ensure that the existing layers are well adhering to the surface. Any loose layers should be removed. WARNING: Make sure that compatibility exists between the existing and new layer. In case you are uncertain or do not know, consult your local VEMAR's representative.



For areas above the water, the line follows the procedure in the below order.

Application on new substrate

Surface type	Wo	boc	St	eel	GRP		Aluminium		
Application type	Conventional	Premium	Conventional	Premium	Conventional	Premium	Conventional	Premium	
1.Cleaning		High pressure fresh water & degreaser if needed							
2.Surface preparation	Sanding with P150-P240	Sanding with P150-P320	Sanding with P150-P240	Sanding with P150-P320	Sanding with P150-P240	Sanding with P150-P320	Sanding with P150-P240	Sanding with P150-P320	
3.Surface preparation	Clean	carefully with	a suitable dete	rgent or degre	aser and make	sure surface i	s completely d	lry	
4.Application with roller/ spray gun	Vemalux Undercoat					Robusto Undercoat	Vemalux Undercoat	Robusto Undercoat	
5.Application with roller/ spray gun	Vemalux Topcoat	Sapphire Topcoat	Vemalux Topcoat	Sapphire Topcoat	Vemalux Topcoat	Sapphire Topcoat	Vemalux Topcoat	Sapphire Topcoat	

Application on old painted surface

You should ensure that the existing layers are well adhering to the surface. Any loose layers should be removed. WARNING: Make sure that compatibility exists between the existing and new layer. In case you are uncertain or do not know, consult your local VEMAR's representative.





HINTS

Make sure that you keep track of the recoating intervals between layers according to the information provided in the relevant Product's data sheets.

It is also important to follow the recommendations provided in the Product's data sheets regarding thinning range in order to maintain each product's properties.

When applying a primer with a roller you should choose a resistant to solvents, foam or mohair type.

Prior to mixing two component epoxy products calculate the quantity you are going to need and the available time for your application.

When the quantity to be used is less than one full package, it is recommended that mixing or thinning of the primer takes place in a separate can and in smaller batches so as to avoid discarding a whole package in the event of a human error.

HOW MUCH PRIMER DO I NEED?



Indicative consumption table for VEMAR's Primers*

Length (feet)	13	20	25	33	43	50	66	82	95
Length (meters)	4	6	7.5	10	13	15	20	25	30
Underwater area (sqm)	8	12	20	27	41	50	70	84	100
Epoxy primer (liters)	1.5	2.5	4	5.5	8	10	13.5	16	19
Aluprime (liters)	2	3	5	6.5	9.5	11.5	16	19	23



SAILING BOAT

Indicative consumption table for VEMAR's Primers*

Length (feet)	13	20	25	33	43	50	66	82	95
Length (meters)	4	6	7.5	10	13	15	20	25	30
Underwater area (sqm)	6	9	14	22	29	37	48	60	72
Epoxy primer (liters)	2	2	3	4.5	6	7.5	9.5	12	15
Aluprime (liters)	2	2	3.5	5	7	8.5	11	14	17

^{*} consumption has been calculated for 2 layers of ready to use product as described in their relevant product's data sheets. The information is indicative and results may differ depending on the boat size, the application method and prevailing conditions.

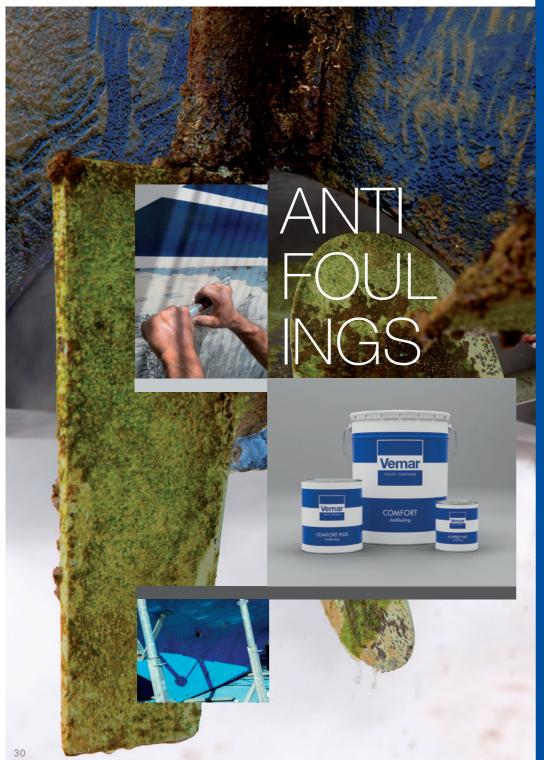




FULL KEEL BOAT

Indicative consumption table for VEMAR's Primers*

Length (feet)	13	20	25	33	43	50	
Length (meters)	4	6	7.5	10	13	15	
Underwater area (sqm)	10	13.5	21	31	50	76	
Epoxy primer (liters)	2	3	4.5	6.5	10	15	
Aluprime (liters)	2.5	3.5	5.5	7.5	12	18	





INTRODUCTION

WHAT IS FOULING?

Fouling is the development of microorganisms on the underwater part of the hull due to the quality of the water where the vessel is being berthed and depends on the stagnation of the water, rainfall level in the area, temperature and the depth of the harbour - marina e.t.c.

Microorganisms threatening the bottom of vessels count 4000 species all over the world and are divided into 2 main categories, Macro-fouling like algae, barnacles and mussels and Micro-fouling like several bacteria and biofilm.

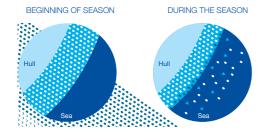
Antifouling coatings protect the vessels against the attachment and development of microorganisms with the use of the correct combination of resins and a biocide package, depending on the conditions that affect their performance.

SELF-POLISHING ANTIFOULINGS

In this category the antifouling reacts with seawater and is hydrolyzed gradually during the season at a constant rate, continuously revealing a new surface enriched with biocides. Self-polishing antifouling is the most widespread product used for leisure and sailing boats cruising at low speeds.

VEMAR's LEISURE, COMFORT & COMFORT PLUS antifoulings belong to this category. LEISURE & COMFORT can be applied on steel, GRP and wooden hull substrates, while COMFORT PLUS can be applied on all surfaces including aluminium hull substrates.

Self-polishing antifouling



Hard antifouling

Antifouling

Biocides



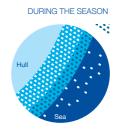
In this category the antifouling becomes hard after the evaporation of the solvents and does not hydrolyze, resulting in an outstanding performance at high cruising speeds.

Being insoluble in seawater, its surface is not renewed, resulting ino a gradual degradation of the biocides effectiveness during the season.

VEMAR'S HI SPEED PLUS antifouling belongs to this category and can be applied on steel, GRP, wood and aluminium hull substrates.



BEGINNING OF SEASON











LEISURE

The high-performance antifouling, Vemar Leisure with controlled release of copper oxides (I) and special biocides. High protection of reefs from the growth of algae, shellfish and other microorganisms. Ideal for polyester, wooden and metal vessels (excluding aluminum) with cruising speed up to 25 knots.

Available shades



LEISURE SAPHIRE BLUE
ABYSS BLACK



COMFORT PLUS

High-performance self-polishing antifouling with an exceptionally controlled unique biocides release rate. It does not contain copper.

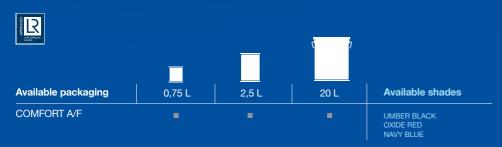
Superior protection of the bottom from the development of algae, macrofouling and other microorganisms. Ideal for GRP, wooden, steel, aluminium and light alloyed vessels with cruising speed up to 29 knots.





COMFORT

High-performance self-polishing antifouling with an exceptionally controlled cuprous oxide and advanced biocides release rate. Superior protection of the bottom from the development of algae, macrofouling and other microorganisms. Ideal for GRP, wooden and steel vessels (except aluminium) with cruising speed up to 29 knots.





HI SPEED PLUS

High-performance hard matrix antifouling that creates a smooth surface thus reducing the friction between the hull and the water resulting in a speed increase. It does not contain copper. Superior protection of the bottom from the development of algae, macrofouling and other microorganisms with the use of unique biocides. Ideal for propellers and GRP, wood, steel, aluminium and light alloyed vessels with cruising speed over 30 knots.



CASE CONTRACTOR				
Available packaging	0,75 L	2,5 L	Available shades	
HI SPEED PLUS A/F	•	•	PURE WHITE GRAPHITE BLACK OCEAN BLUE	



APPLICATION PROCEDURE

On new substrate

Surface type	Wood	Steel	GRP	Aluminium	Propellers		
1. Cleaning	High pressure f	High pressure fresh water & degreaser if needed					
2. Surface preparation	Sanding with P120-P150		Sanding with P120-P150	Sanding	Sanding with P150-P180		
3. Surface preparation	Remove dust by	Remove dust by hosing down with fresh water and let the surface dry completely					
4. Application with roller	2x ALUPRIME	2x VEMASHIELD	2x ALUSHIELD	2x ALUSHIELD	2x VEMASHIELD		
5. Application with roller	2x Antifouling	2x Antifouling	2x Antifouling	2x Antifouling (COMFORT PLUS, HI SPEED PLUS)	2x Antifouling (HI SPEED PLUS)		

Over existing or unknown antifouling

Bottom condition	Old antifouling in good condition	Old unknown or incompatible antifouling	Old antifouling in bad condition and fouling release		
1. Cleaning	Removal of old not well adhering layers by high pressure fresh water cleaning and degreaser if needed				
2. Surface preparation			Sanding with P120-P150 until the full removal of the antifouling or removal with relevant paint remover		
3. Surface preparation	Let the surface dry completely	Let the surface dry completely	Remove the dust by hosing down with fresh water and let the surface dry completely		
4. Application with roller		1x ALUPRIME	2x ALUSHIELD or 2x ALUPRIME		
5. Application with roller	2x Antifouling	2x Antifouling	2x Antifouling		

HOW MUCH ANTIFOULING DO I NEED?



Indicative consumption table for VEMAR's antifoulings*

Length (feet)	13	20	25	33	43	50	66	82	95
Length (meters)	4	6	7.5	10	13	15	20	25	30
Underwater area (sqm)	8	12	20	27	41	50	70	84	100
Antifouling (liters)	2	3	5	7	10.5	12.5	17.5	21	25

SAILING BOAT

Indicative consumption table for VEMAR's antifoulings*

Length (feet)	13	20	25	33	43	50	66	82	95
Length (meters)	4	6	7.5	10	13	15	20	25	30
Underwater area (sqm)	6	9	14	22	29	37	48	60	72
Antifouling (liters)	2	2.5	3.5	5.5	7.5	9.5	12	15	18

^{*} consumption has been calculated for 2 layers of a ready-to-use product as described in their relevant product's data sheets. The information is indicative and results may differ depending on the boat size, the application method and prevailing conditions.



HINTS

The area extending from the waterline and up to approximately one meter below that should be protected with an extra layer of antifouling since this area is prone to fouling due to increased sunlight exposure.

The final shade of the antifouling will be revealed approximately one week following the vessel's launch. Prolonging the interval between maintenance might heavily affect the shade of the antifouling.

It is important to thin the products according to the guidance given in the relevant product data sheets and not exceed these figures, in order to achieve a proper dry film thickness.



FULL KEEL BOAT

Indicative consumption table for VEMAR's antifoulings*

Length (feet)	13	20	25	33	43	50	
Length (meters)	4	6	7.5	10	13	15	
Underwater area (sqm)	10	13.5	21	31	50	76	
Antifouling (liters)	2.5	3.5	5.5	8	12.5	20	





INTRODUCTION

WHAT ARE TOPCOAT FINISHES?

Yachts are meant to shine under the sunlight! At the same time, they need to be protected against UV radiation and salt spray as well!

Topcoats play a double role. First of all, they beautify the yacht by giving color and shine. Second and most importantly they create a protective layer around the hull above the waterline, to protect it from UV radiation and salt spray.



VEMALUX

Fast drying one component enamel topcoat with high gloss retention. Excellent weather and chemical resistance. Can be sprayed or applied by roller/brush.

Available packaging	0,75 L	Available shades

VEMALUX

COLOR CHART p.76



SAPPHIRE

High gloss two-component polyurethane topcoat. Offers excellent weather and chemical resistance. Can be sprayed or applied by roller/brush and is easy to polish.

Available packaging	0,525 L	0,125 L	Available shades
SAPPHIRE Part A	•		COLOR CHART p.76
SAPPHIRE Part B			TRANSPARENT



APPLICATION PROCEDURE

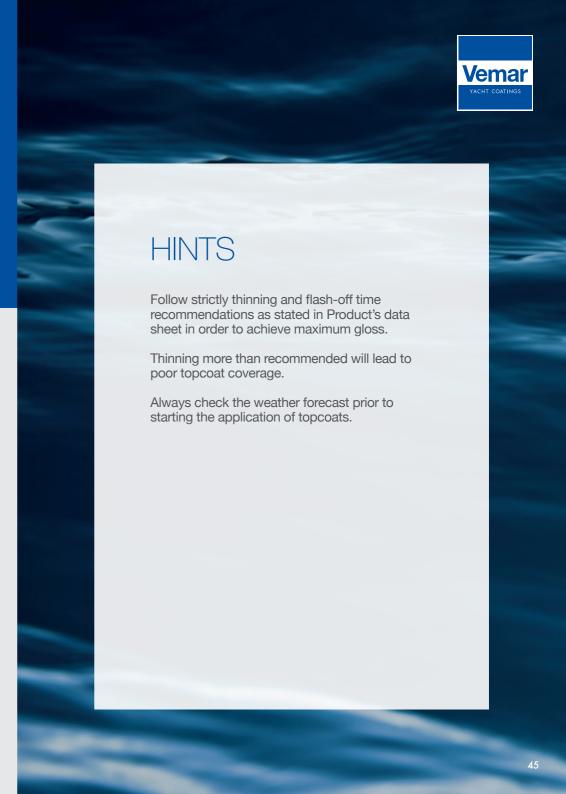
SURFACE PREPARATION

The surface should be primed with a suitable undercoat.

Prior to applying the topcoat, the surface should be free from oil, grease, dust or impurities. Clean the surface carefully with a suitable detergent or degreaser and make sure it is completely dry.

Application on new substrate

Surface type	Primed Surface			
Application type	Conventional	Premium		
1. Cleaning	Clean carefully with a suitable detergent or degreaser and make sure surface is completely dry			
2. Surface preparation	P150-P180	P240-P320		
3.Application with roller/ spray gun	2x Vemalux Enamel Topcoat	2x Sapphire PU Topcoat		





SENTINELLA

A moisture-resistant bilge paint that protects against fuel & chemical spillage while offering easy cleaning properties and durability over time.

Available packaging 0,75 L 2,5 L Available shades SENTINELLA PURE WHITE LIGHT GREY

APPLICATION PROCEDURE

SURFACE PREPERATION

Prior to applying the topcoat, the surface should be free from oil, grease, dust or impurities. Clean the surface carefully with a suitable detergent or degreaser and make sure that it is completely dry.

Quick application guide of Bilge paint

Surface type	New surfaces	Painted surfaces		
1. Cleaning	Clean carefully with a suitable detergent or degreaser and make sure that it is completely dry			
2. Surface preparation	2x VEMASHIELD	Removal of impurities from old coatings 1x VEMASHIELD or 1x VEMALUX Undercoat		
3. Application	2-3x SENTINELLA	2x SENTINELLA		

HINTS

After carefully cleaning the bilge or hatch, leave it open to fresh air for complete drying.

Bilges of the engine room should be carefully cleaned because of the oils and fuels existing there.

After application of the bilge paint ensure adequate ventilation of the area for proper drying and maximum result.





TEAK DEFENDER

WHAT IS THE SYSTEM TEAK DEFENDER?

The teak deck needs constant care to stay in excellent condition for a prolonged time.

TEAK DEFENDER series removes the concentrated organic residue, restores the brightness of the deck, and protects it from extreme weather conditions.

VARNISHES

WHAT IS A VARNISH?

Wooden surfaces, that are exposed to extreme weather conditions, such as excessive exposure to direct sunlight and sea water, need protection. A varnish is a clear topcoat that provides this kind of protection and highlights the surface.

WOOD CARE / TEAK DEFENDER



TEAK DEFENDER CLEANER STEP 1

Removing organic residues on exposed wood surfaces without affecting deck caulking, paint or other deck equipment. The first step of the Teak Defender system.



Available packaging

1 L

4 L

Available shades

TEAK DEFENDER CLEANER

TRANSPARENT BLUE





TEAK DEFENDER BRIGHTENER STEP 2

Restoration of the original wood colour without affecting deck caulking, paint or other deck equipment. The second step of the Teak Defender system.



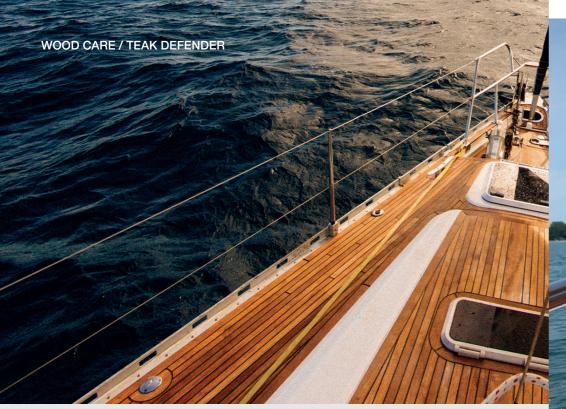




TEAK DEFENDER SEALER STEP 3

A protective solution for exterior bare wood. The third step of the Teak Defender system contains active substances that protect the cellulose structure of the wood from degradation while preventing discolouration caused by excessive sunlight exposure.

Available packaging	0,75 L	2,5 L	Available shades
TEAK DEFENDER	•		TRANSPARENT ORANGE



APPLICATION PROCEDURE

SURFACE PREPARATION

CLEANER STEP 1

Wet the surface thoroughly with fresh water. Apply TEAK DEFENDER CLEANER with a soft bristle brush or sponge. Rinse the deck with plenty of fresh water.

STEP 2

BRIGHTENER Apply TEAK DEFENDER BRIGHTENER with a soft bristle brush or sponge. Allow approximately 5 minutes for reaction time and rinse the deck with plenty of fresh water.

SEALER STEP 3

Apply TEAK DEFENDER SEALER on a clean and dry deck with a brush/roller and allow it to penetrate for 20 minutes. Excess material can be wiped off.





MAJESTIC VARNISH SATIN

A quick drying, satin finish, polyurethane modified, alkydbased varnish. Used as a finishing coat over MAJESTIC Gloss varnish or as a repair coat over intact varnish layers.



MAJESTIC VARNISH GLOSS

A high gloss, polyurethane modified, alkyd-based varnish protecting wood against decomposition and weather discolouration. It can be used on new or aged various types of wood surfaces to provide a flawless mirror-like finish.

Available packaging	0,75 L	2,5 L	Available shades
MAJESTIC SATIN			TRANSPARENT YELLOW

Available packaging	0,75 L	2,5 L	Available shades
MAJESTIC GLOSS			TRANSPARENT YELLOW

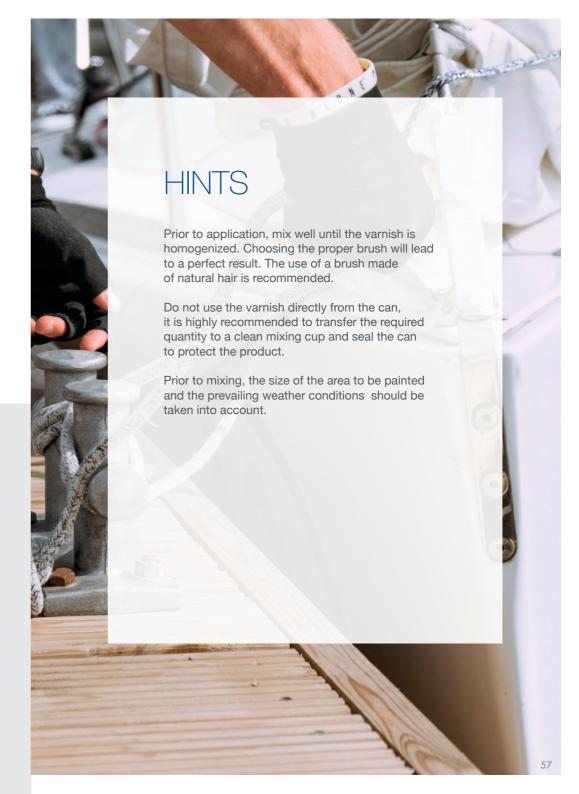
APPLICATION PROCEDURE

SURFACE PREPERATION

Prior to applying the varnish, the surface should be free from oil, grease, dust or impurities. Clean the surface carefully with a suitable detergent or degreaser and make sure that it is completely dry.

Varnishes quick application guide

Surface type	Bare Wood	Varnished or sealed surfaces
1. Cleaning	Clean with TEAK DEFENDER Cleaner, rinse with fresh water and dry completely	Clean with Thinner 820 and dry completely
2. Surface preparation	Sand with P100-220	Sand with P220-320
2. Surface preparation	Remove dust	Remove dust
4. Application	1-8x MAJESTIC GLOSS	1-4x MAJESTIC GLOSS
5. Application	1-3x MAJESTIC SATIN over MAJESTIC GLOSS	1-3x MAJESTIC SATIN







INTRODUCTION

WHAT IS A POLISHING COMPOUND?

Polishing compounds are used to restore the topcoat of a hull to its initial gloss as when first painted. Also, their use is necessary for the repair of defects that may occur during the refinishing of a yacht.

According to their composition, polishing compounds differ in their cutting and finishing properties to adapt to the user's needs depending on the defect that needs to be repaired.

The basic compound categories are cutting, fine, onestep and finishing.



909 POLISHING COMPOUND

A high-performance silicon-free polishing compound with technologically advanced abrasives providing cutting and polishing properties for all types of topcoats and gel coats.

	İ	
Available packaging	1 KG	Available shades
909 POLISHING COMPOLIND	•	WHITE

APPLICATION PROCEDURE

Step	Description					
1.	Shake well before use					
2.	Oxidized surface	Freshly applied paint				
	Use a Wool pad	Use a Hard foam pad				
3.	Apply the compound on the pad and then spread all over the surface					
4.	Compound using medium pressure at 900-1200 rpm. Repeat the same stage in case of very deep scratches					
5.	It is recommended to use a soft foam pad and repeat stages 3 and 4 increasing the speed to 1200-1500 rpm to achieve a mirror-like finish without swirls and holograms					
6.	Clean the surface with a s	soft cloth without edges				

HINTS

The compound should always be applied on the pad, in dots with a distance of around 2cm between them. In this way, there is controlled use of compound quantity. This is important since excessed quantity means longer compounding and higher surface temperature and low quantity means no cutting and on the contrary more damage on the surface from the dry pad.

During the compounding, the pad must always be angled to the surface and never stand at the same spot for a long time since this can damage the surface. Also, the compound needs to be observed while compounding. If compounding is continued after the compound dries, then the surface is damaged. A dried compound can be identified by a strong presence of white dust or by the absence of oiliness on the surface.

Always use the manufacturer's recommended pads as this plays a significant role in achieving a perfect result.





HINTS

When thinning paints, you should not exceed the recommended thinning range since in this case there is a high risk of affecting the product's properties such as the drying time, coating's thickness or the curing procedure.

Prior to adding any thinner to a product, consult the relevant product's datasheet.



Product	THINNER 800	THINNER 805	THINNER 820	THINNER 850	THINNER 860
Туре	Blend of solvents suitable for Vinyl, Acrylic and Alkyd based products.	Blend of solvents suitable for acrylic based products.	Special degreaser for the removal of any contaminants from the surface prior painting.	Blend of solvents suitable for epoxy based products.	Blend of solvents suitable for Alkyd based products.
For use with	One component primers and topcoats.	Two component primers and topcoats when applied by roller.	Any contaminated surface.	Epoxy primers.	One component primers and topcoats applied by roller.
VEMAR's products	ALUPRIME	ROBUSTO, SAPPHIRE		ALUSHIELD, VEMASHIELD	VEMALUX





INTRODUCTION

WHAT IS A REMOVER?

Removers are products used to remove a layer of coating from a substrate without the need of mechanical equipment. The removal is achieved with a chemical reaction between the remover and the coating.

There are various removers depending on the chemistry of the coating that needs to be removed. Removers that are used for antifouling removal do not affect epoxy primers of the osmosis treatment or the gel coat.





LT REMOVER 900

A mild water-based paint stripper is used to remove one component products. Does not contain methylene chloride or other solvents that may affect two-component epoxy-based products. Its mild synthesis is optimal for the removal of old antifouling layers and one component of alkyd, acrylic and vinyl-based primers without affecting the osmotic protection layers or the gel coat.

Available packaging	3 L	Available shades
LT REMOVER 900	•	LIGHT BEIGE

APPLICATION PROCEDURE

SURFACE PREPARATION

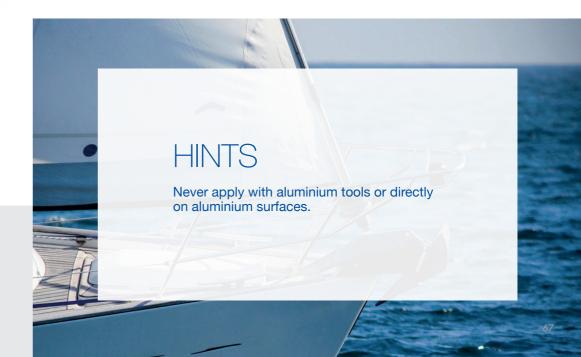
Stir well before use. Apply on the coating that needs to be removed. The reaction time depends on the surface temperature as shown in the following chart. Depending on the type and thickness of the coating the required reaction may range from 1-24 hours for completion. Remove the layers with a plastic or metallic (not aluminum) spatula. Rinse with fresh water to remove residues. Repeat the procedure where necessary. Warning: Do not apply on aluminium surfaces or with aluminium tools, since corrosion may occur. Apply in a well-ventilated area.

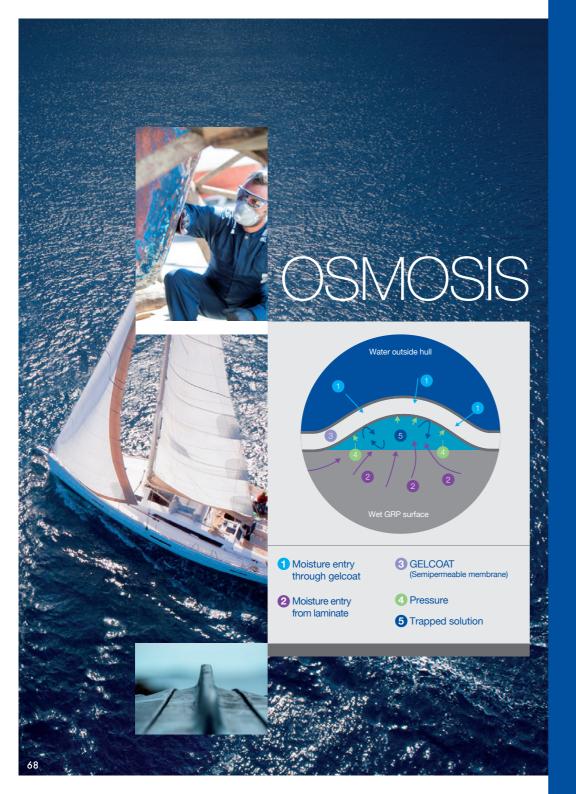
Reaction interval according to surface temperature

5°C/4 h	15°C/2 h	20°C/1h	35°C/ 30 min
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*The above information is indicative and may be used as guidance only.

Actual values may differ according to actual prevailing conditions.







INTRODUCTION

THE OSMOSIS PHENOMENON EXPLAINED

The Osmosis Phenomenon affects GRP vessels being their most important deterioration issue. It occurs due to a difference in pressure created when a semipermeable membrane separates two liquids of a different density: the seawater from the external area of the hull and the humidity entering the laminate (less often) from the internal area of the hull.

For example, in bilges, humidity enters slowly into the laminate, where it reacts with fiberglass and other materials creating an acidic liquid with a greater density compared to seawater. This liquid cannot get through the gel coat due to its greater density thus it generates pressure that creates blisters on the gel coat surface.

Factors influencing the presence of the phenomenon are the quality and temperature of the seawater where the vessel is berthed, the structural defects of the laminate, especially air pockets or voids not removed during the construction phase, and the amount of time the vessel stays in the water.

THE SIGNS OF OSMOSIS

Osmosis can be recognized by the typical blisters created on the outer or inner part of the hull. If a brown, bad-smelling liquid can be found while opening a blister, then this is a sign of osmosis and a treatment scheme should be planned.

However, the presence of blisters isn't always a sign of Osmosis. Their presence might be a result of entrapped air or solvents during paint application which, if this is the case, is located only on the surface, not affecting the hull's gelcoat. The internal of these types of blisters is hard and dry.





OSMOSIS TREATMENT

Dealing with Osmosis requires knowledge of the necessary treatment procedures and it is recommended that all relevant works are carried out by professionals.

Recommended osmosis treatment plan

1. Cleaning	Remove all existing antifouling, primers by sanding or sandblasting. Wash down and degrease the surface.
2. Surface preparation	Allow for the surface to complete dry, use a moisture measurement device to check for proper hull moisture levels.
3. Application	1x ALUSHIELD
4. Application	ULTRAFILL, ULTRAFINE
5. Application	2x ALUSHIELD
6. Application	1x ALUPRIME
7. Application	2-3x ANTIFOULING

RECOMMENDED SPECIFICATIONS

STEEL Surface preparation: Remove oil & grease (if any) with a suitable alkali detergent. Remove salt deposits, dust and/or other impurities by fresh water cleaning. Sand blast the surface to an Sa 2, preferably Sa 2 ½, degree of cleanliness according to ISO 8501 -1. In case of Water-jetting, the substrate to be painted should have a cleanliness degree of minimum Wa 2 (ISO 8501-4). A maximum Flash rust M, preferably L, will be acceptable according to ISO 8501-4. Mechanical treatment should be used only for small repairs with a minimum achieved St2 degree, preferably St3 (ISO 8501-1). The final surface profile should correspond to ISO 8503 Comparator Medium (G) or Rugotest No.3, BN10.

GRP Surface preparation: Remove oil, grease or mould release agent (if any) with a suitable alkali detergent. Remove salt deposits, dust and/or other impurities by fresh water cleaning. Sand the surface to be coated with a grit size of 180-200 sandpaper to ensure adhesion. Remove the dust created by sanding. Make sure that the surface is completely dry prior to the application.

BFI OW WATER

	222011111								
Description	Туре	Nr. of Layers	Thinner	Total WFT	Total DFT	Recoatin Min	g @ 20°C Max	Coverage m²/ltr	
CONVENTIONAL									
Primer	ALUPRIME	4-5	800	380-475 μm	160-200 μm	2 hr	None	10,5	
Antifouling	VEMAR A/F	2-3	800	220-330 µm	120-180 μm	6 hr	None	8,3-10,8*	
Launching						12 hr	6 months		
PREMIUM			'	'	'				
Primer	VEMASHIELD	1	850	65 µm	50 µm	3 hr	3 d	15	
Filler (if needed)	ULTRAFILL			2 cm/layer	2 cm/layer	7 hr	3 d		
Filler (if needed)	ULTRAFINE			3 mm/layer	3 mm/layer	7 hr	3 d		
Primer	VEMASHIELD	2-3	850	130-195 μm	100-150 μm	3 hr	7 hr	15	
Antifouling	VEMAR A/F	2-3	800	220-330 μm	120-180 μm	6 hr	None	8,3-10,8*	
Launching						12 hr	6 months		

WFT= Wet Film Thickness, DFT= Dry Film Thickness

* Depending on antifouling type

ABOVE WATER

/ BOVE W								
Description	Туре	Nr. of Layers	Thinner	Total WFT	Total DFT	Recoatin Min	g @ 20°C Max	Coverage m²/ltr
CONVENTIO	NAL		'		1			'
Undercoat	VEMALUX ALKYD UNDERCOAT	2-3	800	45-75 μm	30-50 μm	4 hr	48 hr	16
Topcoat	VEMALUX ENAMEL TOPCOAT	2-3	860	65-90 µm	40-60 μm	12 hr	48 hr	12
PREMIUM								
Primer	VEMASHIELD	1-2	850	65-130 μm	50-100 μm	3 hr	72 hr	15
Filler (if needed)	ULTRAFILL			2 cm/layer	2 cm/layer	7 hr	72 hr	
Filler (if needed)	ULTRAFINE			3 mm/layer	3 mm/layer	7 hr	72 hr	
Undercoat	ROBUSTO PU UNDERCOAT	2-3	800	75-145 μm	40-80 μm	8 hr	48 hr	9,2
Topcoat	SAPPHIRE PU TOPCOAT	2-3	800/805	60-80 μm	30-50 μm	6 hr	16 hr	9-12

BELOW WATER

Description	Туре	Nr. of Layers	Thinner	Total WFT	Total DFT	Recoatin Min	g @ 20°C Max	Coverage m²/ltr
CONVENTIONAL	_			'				
Primer	ALUPRIME	1-2	800	95-190 μm	40-80 μm	2 hr	None	10,5
Antifouling	VEMAR A/F	2-3	800	220-330 μm	120-180 μm	6 hr	None	8,3-10,8*
Launching						12 hr	6 months	
PREMIUM				'	'			'
Primer	ALUSHIELD	2	850	130 µm	100 µm	3 hr	3 d	15
Filler (if needed)	ULTRAFILL			2 cm/layer	2 cm/layer	7 hr	3 d	
Filler(if needed)	ULTRAFINE			3 mm/layer	3 mm/layer	7 hr	3 d	
Primer	ALUSHIELD	2	850	130 µm	100 µm	3 hr	7 hr	15
Antifouling	VEMAR A/F	2-3	800	220-330 μm	120-180 μm	6 hr	None	8,3-10,8*
Launching						12 hr	6 months	

WFT= Wet Film Thickness, DFT= Dry Film Thickness

* Depending on antifouling type

ABOVE WATER

Description	Туре	Nr. of Layers	Thinner	Total WFT	Total DFT	Recoatin Min	g @ 20°C Max	Coverage m²/ltr
CONVENTIONAL								
Undercoat	VEMALUX ALKYD UNDERCOAT	2-3	800	45-75 μm	30-50 μm	4 hr	48 hr	16
Topcoat	VEMALUX ENAMEL TOPCOAT	2-3	860	65-90 μm	40-60 μm	12 hr	48 hr	12
PREMIUM								
Primer	ALUSHIELD	1-2	850	60-120 µm	45-90 μm	3 hr	72 hr	15
Filler (if needed)	ULTRAFILL			2 cm/layer	2 cm/layer	7 hr	72 hr	
Filler (if needed)	ULTRAFINE			3 mm/layer	3 mm/layer	7 hr	72 hr	
Undercoat	ROBUSTO PU UNDERCOAT	2-3	800	75-145 µm	40-80 μm	8 hr	48 hr	9,2
Topcoat	SAPPHIRE PU TOPCOAT	2-3	800/805	60-80 μm	30-50 μm	6 hr	16 hr	9-12

RECOMMENDED SPECIFICATIONS

ALUMINIUM Surface preparation: Remove oil & grease (if any) with a suitable alkali detergent. Remove salt deposits, dust and/or other impurities by fresh water cleaning. Grit blast the surface with non-metallic abrasive types (ISO 11126) to a rough profile (approx. 50-75 µm) or sand the area with 80-120 sandpaper.

WOOD Surface preparation: Sand the surface to be coated with a grit size of 80-120 sandpaper to ensure adhesion. Remove the dust created by sanding. Make sure that the surface is dry prior to the application. Humidity must be less than 18% RH.

BELOW WATER

Description	Туре	Nr. of Layers	Thinner	Total WFT	Total DFT	Recoatin Min	g @ 20°C Max	Coverage m²/ltr
CONVENTIO	CONVENTIONAL							
Primer	ALUPRIME	4-5	800	380-475 μm	160-200 μm	2 hr	None	10,5
Antifouling	VEMAR A/F	2-3	800	220-330 μm	120-180 µm	6 hr	None	8,3 - 10,8*
Launching						12 hr	6 months	
PREMIUM					'			'
Primer	VEMASHIELD	1	850	65 µm	50 μm	3 hr	3 d	15
Filler (if needed)	ULTRAFILL			2 cm/layer	2cm/layer	7 hr	3 d	
Filler (if needed)	ULTRAFINE			3 mm/layer	3mm/layer	7 hr	3 d	
Primer	VEMASHIELD	2-3	850	130-195 µm	100-150 μm	3 hr	7 hr	15
Antifouling	VEMAR A/F	2-3	800	220-330 µm	120-180 µm	6 hr	None	8,3 - 10,8*
Launching						12 hr	6 months	

WFT= Wet Film Thickness, DFT= Dry Film Thickness

* Depending on antifouling type

DLLOW WAILI

Description	Туре	Nr. of Layers	Thinner	Total WFT	Total DFT	Recoatin Min	g @ 20°C Max	Coverage m²/ltr
				10.00	10.00			
CONVENTIO	NAL							
Primer	ALUPRIME	3-4	800	285-380 μm	120-160 µm	2 hr	None	10,5
Antifouling	VEMAR A/F	2-3	800	220 - 330 µm	120-180 µm	6 hr	None	8,3 - 10,8*
Launching						12 hr	6 months	
PREMIUM				,				
Primer	ALUSHIELD	1	850	65 µm	50 μm	3 hr	3 d	15
Filler (if needed)	ULTRAFILL			2 cm/layer	2 cm/layer	7 hr	3 d	
Filler (if needed)	ULTRAFINE			3 mm/layer	3 mm/layer	7 hr	3 d	
Primer	ALUSHIELD	3-4	850	195-260 μm	150-200 µm	3 hr	7 hr	15
Antifouling	VEMAR A/F	2-3	800	220-330 μm	120-180 µm	6 h	None	8,3 - 10,8*

WFT= Wet Film Thickness, DFT= Dry Film Thickness

Launching

* Depending on antifouling type

6 months

12 hr

ABOVE WATER

Description	Туре	Nr. of Layers	Thinner	Total WFT	Total DFT	Recoatin Min	ıg @ 20°C Max	Coverage m²/ltr
CONVENTIO	NAL							
Undercoat	VEMALUX ALKYD UNDERCOAT	2-3	800	45-75 μm	30-50 μm	4 hr	48 hr	16
Topcoat	VEMALUX ENAMEL TOPCOAT	2-3	860	65-90 μm	40-60 μm	12 hr	48 hr	12
PREMIUM								
Primer	VEMASHIELD	1-2	850	65-130 μm	50-100 μm	3 hr	72 hr	15
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Filler (if needed)	ULTRAFINE			3 mm/layer	3 mm/layer	7 hr	72 hr	
Undercoat	ROBUSTO PU UNDERCOAT	2-3	800	75-145 µm	40-80 μm	8 hr	48 hr	9,2
Topcoat	SAPPHIRE PU TOPCOAT	2-3	800/805	60-80 μm	30-50 μm	6 hr	16 hr	9-12

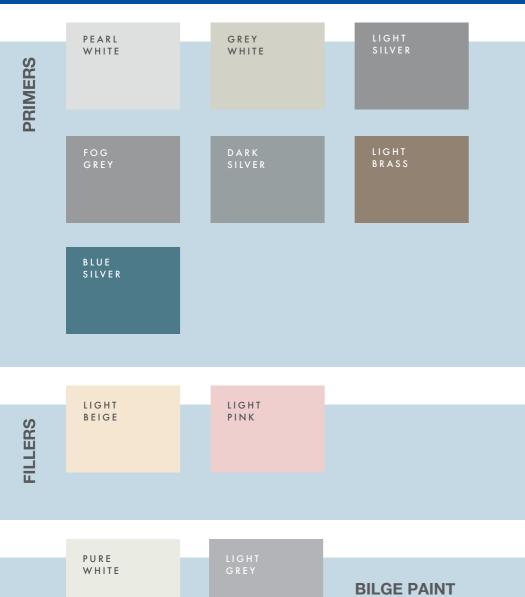
ABOVE WATER

BELOW WATER

Description	Туре	Nr. of Layers	Thinner	Total WFT	Total DFT	Recoatin Min	g @ 20°C Max	Coverage m²/ltr
CONVENTIO	NAL	1	1					1
Undercoat	VEMALUX ALKYD UNDERCOAT	2-3	800	45 -75 μm	30-50 μm	4 hr	48 hr	16
Topcoat	VEMALUX ENAMEL TOPCOAT	2-3	860	65-90 µm	40-60 μm	12 hr	48 hr	12
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Undercoat	ROBUSTO PU UNDERCOAT	2-3	800	75-145 μm	40-80 μm	8 hr	48 hr	9,2
Topcoat	SAPPHIRE PU TOPCOAT	2-3	800/805	60-80 µm	30-50 μm	6 hr	16 hr	9-12



C O L O R C H A R T





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Note:

SENTINELLA

Despite our best efforts for high accuracy, depiction of the shades as imprinted on paper / sample cards or seen on any type of screen, may vary from the actual shades, depending on your printer settings, the type of paper used or your monitor settings.



HEALTH, SAFETY & ENVIRONMENT

with the love for the sea, the human and the environment.

PERSONAL PROTECTION RULES



Always wear personal protection equipment (PPE) like gloves, safety goggles, boiler suit and a breathing mask to protect your eyes, lungs and skin.

It is preferable to wet sand the area to avoid dust inhalation.

Do not inhale when standing directly above open cans.

Do never expose parts of your body and especially your head under a painting area. In case any type of product comes in contact with your skin, wash immediately and repeatedly with water and soap.

Do not use thinner for cleaning your skin.





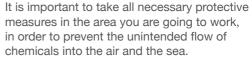








ENVIRONMENTAL PROTECTION





When dry sanding, it is always preferable to use vacuum-connected electric sanders for the collection of dust.



Empty and or unopened expired cans must be forwarded to specializing hazardous waste management facilities and not disposed of at residual waste bins.





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