



BOEROGUARD DUO

700.658

Description

Boeroguard Duo is a high-performance, two-component modified epoxy primer engineered for maximum versatility. Designed to function both as a multi-purpose anticorrosive primer and as a premium tie coat for antifouling systems, it streamlines application processes while ensuring superior protection. Its extended non-sanding overcoating window—up to 3 months—allows direct application of any Boero anti-fouling without surface preparation, delivering exceptional flexibility in scheduling and significant efficiency gains in shipyard operations.

Use

Recommended as an epoxy primer suitable for above and below the waterline, as well as anti-fouling tie coat as part of the underwater system.

Informations

Finish	Matt	
Colours	.001 White - .259 Grey	
Pack	0.75 – 2.5 – 10 l	
Solids by Volume	56 ± 2%	ISO 3233-2
Specific Gravity	1.30 ± 0.02 g/cm ³	ISO 2811-1
Flash Point	23 °C	ISO 3679
VOC	373 g/l	Calculated
Shelf Life	Comp. A 36 months Comp. B 24 months	

Application

Pre-treatment: Remove all traces of surface contamination, oil, grease and anti-fouling leached layer by freshwater cleaning. For carbon steel, aluminium and composites use pressure freshwater cleaning (200-300 bar) (ISO 8501-4). Proceed with degreasing or solvent cleaning if necessary (ISO 12944-4 and ISO 8504-3) and repeat freshwater cleaning. All surfaces must be clean, dry and free of contaminants.

SURFACE PREPARATION - NEW BUILD

Carbon steel: dry abrasive blast cleaning to a minimum Sa 2 grade (ISO 8501-1). Blasting shall be performed using a sharp, angular, grit and suitable abrasive. Alternatively, for small areas or subject to prior written agreement with our technical staff, perform a mechanical grinding grade St 3 (ISO 8501-1/2/3) using extra coarse-grained discs P24. The recommended roughness Rz obtained after the blasting or mechanical cleaning, is 50 - 90 µm (ISO 8503-1/2). Apply a full coat of primer covering the treated metal to the standard mentioned above and before this presents signs of oxidation or colour variation

Aluminium, stainless steel, alloys: uniform light sweep blast cleaning with a suitable non-metallic abrasive (ISO 12944-4) or manual/mechanical grinding with non-metallic extra coarse-grained discs, grade P16 for stainless steel and P36 for aluminium/other alloys. Substrate must be completely and uniformly renewed (silver colour) without any oxidation and coated with primer the same day of preparation. Roughness profile Rz after surface preparation shall be between 50 and 90 µm (ISO 8503-1/2).

Wood: maximum humidity content in the wood 18%. Provide superficial rugosity by mechanically sanding with sandpaper grade P60-80. Apply the first coat of primer over the treated surface within a maximum of 7 days.

Composites with peel ply: remove the peel ply. If the exposed substrate is fully cured, in a good condition and clean, apply the recommended products. If the exposed substrate is not in good condition and/or contaminated, degrease, provide rugosity with sandpaper P60-P80 and clean before application of recommended products. Apply the first coat of primer over the treated surface within 48 hours maximum.



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Composites without peel ply: composites must be fully cured before starting surface preparation. Provide general rugosity by sanding uniformly with sandpaper P80-P120. Damages reaching GRP without gelcoat: provide rugosity with sandpaper P60-P80. Apply the first coat of primer over the treated surface within 48 hours maximum.

MAINTENANCE & REPAIR

General guidelines: completely remove any loose / poorly adhered paint. Avoid sharp edges between spots of remaining intact paint and the surface by feathering it. Touch-up with an epoxy primer it is necessary to rebuild the coating system thickness specified in the painting specifications to achieve the correct corrosion protection. The surface must be completely free of oil, grease, dirt, condensation, and other contaminants before each coat application.

Coated surfaces in good condition: provide superficial rugosity with sandpaper grade P80-P120 to all exposed primers until obtaining a uniform roughened non-shiny surface. Apply the first coat of primer over the treated surface within a maximum of 7 days.

Carbon steel: dry abrasive blast cleaning to a minimum P Sa 2 grade (ISO 8501-2/3).

Corrosion spots and degraded material: spot abrasive blasting grade P Sa 2½ (ISO 8501-2/3) of new plates, welds, with an adequate abrasive. Alternatively use mechanical grinding using extra coarse-grained discs P24 until achieving grade P St.3 (ISO 8501-2/3).

Roughness profile after surface preparation shall be between 50 and 90 µm (ISO 8503), the metal must be clean and uniformly rough, avoiding polishing the surface.

Carbon steel - underwater area: to proceed with painting using this surface-tolerant product, it is also possible to remove old paint coatings completely by high pressure hydrodynamic unit, High Pressure Water Jetting, HP WJ (operating pressure of 700 at 2100 bar) - Ultra High Pressure Water Jetting, UHP WJ (> 2100 bar), after achieving a Wa 2½ grade (ISO 8501-4) and ensuring that flash rust does not exceed grade L (Low - ISO 8501-4). On a reference area with the aforementioned surface treatment, verify that the existing roughness profile is between 50 and 90 µm (ISO 8503). Re-check compliance after the treatment is complete.

Cover with surface-tolerant primer to the standard mentioned above and before this shows any further signs of oxidation or colour variation.

Aluminium, stainless steel, alloys and lead: spot/light sweep blast cleaning with a suitable non-metallic abrasive (ISO 12944-4) or manual/mechanical grinding with non-metallic extra coarse-grained discs, grade P16 for stainless steel and P36 for aluminium/other alloys. Substrate must be completely and uniformly renewed (silver colour) without any oxidation and coated with primer the same day of preparation. Roughness profile after surface preparation shall be between 50 and 90 µm (ISO 8503).

Wood: maximum humidity content in the wood 18%. Provide superficial rugosity by mechanically sanding with sandpaper grade P60-P80. Apply the first coat over the treated surface within a maximum of 7 days.

Composites: composites must be fully cured before starting surface preparation.

Damages reaching GRP without gelcoat: provide rugosity with sandpaper P60-P80.

Damages reaching GRP with gelcoat: provide rugosity with sandpaper P80-P120. Apply the first coat over the treated surface within 48 hours maximum.

How to Apply

Standard		Brush and roller (roller is not recommended for first coat when blasting)
Conventional Spray		Pressure 3,5 bar Nozzle 1,6 – 1,8 mm
Airless		Pressure 150 bar Nozzle tip 0,017 – 0,021"



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Film Thickness per Coat

DFT	<u>As primer</u> Recommended: 100 µm Standard application range: 100 - 150 µm <u>As tie coat</u> Recommended: 100 µm Standard application range: 70 - 100 µm
WFT	<u>As primer</u> Recommended: 180 µm Standard application range: 180 - 270 µm <u>As tie coat</u> Recommended: 180 µm Standard application range: 125 - 180 µm

Additional Application Information

Theoretical spreading rate	Application range at the recommended thickness: 100 µm - 5,6 m ² /L
Thinner	693 - Roller/Brush (5% max) 693 - Conventional spray: (10% max) 693 - Airless: (5% max)
Hardener	EPOXY HARDENER 651 (For Delta 3000/UCHB, Epoply, Boeroguard Duo)
Mixing ratio by volume	4:1
Mixing ratio by weight	88:12
Pot-life at 20 °C	4 h

Application notes

Prepare the painting by mixing the components in the correct proportions.

It is recommended to mix complete kits to avoid a wrong mixing ratio that may reduce the paint designed protection. If less paint is needed, smaller amount may be prepared in a mixing ratio cup.

Dilute the mixed product, not the components separately. Extra thinning will result in lower film build and slower drying.

If the maximum overcoating interval is exceeded, roughening of the surface is necessary to ensure intercoat adhesion.

The physical data of two-component products refer to components that have been already mixed.

Compatibility

Previous Coat

Boeroguard, Epotar Free

Subsequent Coat

All Boero Anti-foulings, Epolight Win, Epolight EU, Epoyacht



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Drying Time

		10 °C		15 °C		20 °C		30 °C	
		Min	Max	Min	Max	Min	Max	Min	Max
Overcoating interval	BoeroGuard Duo	8 h	6 months	6 h	6 months	4 h	6 months	3 h	6 months
	AF	9 h	3 months	7 h	3 months	6 h	3 months	4 h	3 months
Touch dry		3.5 h	3.5 h	2 h	2 h	1.5 h	1.5 h	45'	45'
Depth dry		30 h	30 h	18 h	18 h	12 h	12 h	8 h	8 h
Complete curing		10 days	10 days	7 days	7 days	7 days	7 days	5 days	5 days

N.B. The drying times and the overcoating intervals increase with higher thickness of the applied film. Always check that the existing painting film is perfectly dry before applying a further product coat. The surface must be superficially sanded if the overcoating interval is exceeded.

Conditions during application

During application and curing:

Ambient temperature: minimum 10°C, maximum 35 °C.

Minimum substrate temperature 10 °C (if during the curing the temperature drops below 10 °C, overcoating will take additional time).

Avoid the formation of condensation, the surface temperature should be at least 3 °C above dew point.

Maximum relative humidity 85%.

Painting area should be well ventilated, during application and drying/curing.

Storage

It is recommended to avoid exposure to air and extreme temperatures. To maximize the shelf life in the can, check that the container is closed during the storage and the temperature is between 5 °C and 35 °C.

Avoid exposure to direct sunlight.

Safety Rules

Comply with the provisions set by the local health and safety at work regulations. Avoid contact with the skin, operate in well-ventilated places and, if in closed areas, use vacuum cleaners, fans and air conveyors. During the application use appropriate PPE - Personal Protections Equipment (masks, gloves, glasses, etc.). Before using, read sections 7-8 of the SDS

INSTRUCTIONS FOR THE DISPOSAL OF THE BIOCIDAL PRODUCTS AND PACKAGING

Empty packaging containing biocidal products: disposal of empty packaging according to the requirements of the waste disposal law, for example by taking them to the recycling centre. Packages containing the unused biocidal product: Dispose of the product not used in accordance with the law of disposal of such waste, for example by taking it to a recycling centre, recycling of packaging is prohibited in this case. Do not empty into drains or watercourses.

INSTRUCTIONS FOR THE SAFETY SECURITY OF THE BIOCIDAL PRODUCTS AND PACKAGING

Empty containers and containers still containing the biocidal product: Packaging must be disposed of as hazardous waste under the full responsibility of the holder of such waste. Do not empty into drains or watercourses.

Disclaimer

The values indicated in the present technical sheet can have slight variations from one batch to another. The applied product must not come in contact with water, chemicals or subjected to mechanical stress before the curing is complete. The wet film thickness refers to the undiluted product. In case of dilution, this value increases. The above information is the result of accurate laboratory tests and practical experience, however, since the product is predominantly used outside the manufacturer's control, Boero Bartolomeo S.p.A. can only guarantee their quality. The information contained in this sheet may be subject to revision by the Company. For clarification, updates or further information, it is recommended to contact Boero Bartolomeo S.p.A. directly. The present datasheet annuls and replaces every other precedent to this one.