

CHALLENGER PRO SY

70P.680

Description

Two component premium, high gloss polyurethane acrylic topcoat, designed for application of large surfaces, as seen on superyachts, with excellent aesthetical finish, gloss and colour retention. Challenger Pro SY is available through the Challenger Mix tintometric system, that offers more than 40,000 solid colour shades.

Use

Easy to apply premium high gloss polishable topcoat for above the waterline areas.

Informations

Finish	High gloss	
Colours	Colour card and tintometric system	
Pack	2 - 4 l	
Solids by Volume	45 ± 2%	ISO 3233-2
Specific Gravity	1.0 ÷ 1.2 g/cm ³	ISO 2811-1
Flash Point	23 - 55 °C	ISO 3679
VOC	412 g/l	Calculated
Shelf Life	Comp. A 6 months Comp. B 24 months	

Application

SURFACE PREPARATION

All surfaces must be perfectly clean, dry and free of oil and contaminants before application of recommended products. Existing paint/materials must be dry, undamaged and compatible. For optimum performance of the topcoat system, undercoats Epoly or Undercoat Pro are recommended. Undercoats must be cured before sanding: at 20°C, minimum drying time 3 days, recommended 7 days, allow 14 days of curing for maximum DOI performance. Sanding sequence should be followed to achieve maximum gloss and image distinction. Avoid skipping more than 100µm between sanding grade steps. Start with manual sanding/cornering, followed by mechanical sanding with an orbital sander 2mm or 3mm. Recommended roughness after sanding is 5 - 7µm (Rz). Minimum dry film thickness of undercoats after sanding is 80µm. Supplied air for surface preparation and cleaning must be dry and clean.

NEW BUILD

Primers and Undercoats: clean, dry and undamaged compatible primers or undercoats, uniformly abraded with sandpaper grade P320- P400. Challenger Pro SY show-coat: clean and dry Challenger Pro SY show-coat, uniformly abraded with sandpaper grade P320-P400.

MAINTENANCE

Primers and Undercoats: clean, dry and undamaged compatible primers or undercoats, uniformly abraded with sandpaper grade P320-P400.

Aged topcoats - complete area: clean, dry and compatible topcoats, uniformly abraded with sandpaper grade P320-P400, must be coated with an undercoat before Challenger Pro SY application.

Aged Topcoats - touch-up: follow Boero Technical Specification and specific Boero Touch-up Procedure. Use Boero dedicated products for repairs: Challenger Mix Blending Agent.



Testing on a non-critical area should be carried out to test compatibility.

Polishing: follow Boero Polishing Procedure.

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How to Apply

Standard		Not applicable
Conventional Spray		Pressure 3,5 bar Nozzle 1,1 - 1,4 mm
Pressure pot		Pressure 3,5 bar Nozzle 0,7 - 1,1 mm

Film Thickness per Coat

DFT	Recommended: 45 µm Standard application range: 40 - 60 µm
WFT	Recommended: 110 µm Standard application range: 90 - 130 µm

Additional Application Information

Theoretical spreading rate	Application range at the recommended thickness: 45 µm - 10 m ² /l
Number of Coat Recommended	Recommended thickness of 45 µm to be achieved in 2 or 3 wet on wet coats.
Thinner	15 - 25 °C Thinner PRO 698 (20 - 45% max) 22 - 35 °C Thinner PRO slow 697 (20 - 45% max)
Hardener	P674.999 HARDENER PRO P690.999 HARDENER PRO CLEAR & TOPCOAT
Mixing ratio by volume	2:1
Mixing ratio by weight	White colours - 70:30 Dark Colours - 66:33
Pot-life at 20 °C	2 h
Spray viscosity at 20 °C	14 - 16 sec DIN 4 at 20° C

Compatibility

Previous Coat

Epolly, Undercoat PRO

Proceeding Coat

N.A.

Application notes

After undercoats sanding, application of topcoats should be done within maximum 15 days, to ensure a proper adhesion. Thinner type and proportion are related with temperature and relative humidity conditions during application and drying. Different thinner types can be mixed in recommended proportions to achieve the proper viscosity and sprayable properties. Mixed material must be filtered before application. Typically apply 2 or 3 coats wet on wet, to achieve the total recommended thickness and uniform coverage.

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General 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 performance. If less paint is needed, smaller amount may be prepared in a mixing ratio cup. Dilute the mixed product, not the components separately. Practical spread rate will vary according to spray equipment, application techniques, thinning and environmental conditions. Total thickness per coat to be achieved in 2/3 wet on wet coats.

Given recoating times are indicative, as it can vary according to actual thickness applied, weather conditions, painting plan and project size. Certain colour shades may be sensitive for polishing and may be affected during sanding or aggressive polishing, having an impact on the long-term performance and appearance.

Contact your local Boero office or representative for further information.

Drying Time

	10 °C		15 °C		20 °C		30 °C	
	Min	Max	Min	Max	Min	Max	Min	Max
Wet on wet overcoating interval	N.A.	N.A.	60'	180'	50'	120'	30'	90'
Sanding	N.A.	N.A.	72 h	72 h	48 h	48 h	36 h	36 h
Polishing	N.A.	N.A.	N.A.	N.A.	48 h	48 h	N.A.	N.A.
Full curing	N.A.	N.A.	7 days	7 days	7 days	7 days	7 days	7 days

N.B. The drying times and the overcoating intervals increase with higher thickness of the applied paint film. Always check the existing paint film is dry before applying any further product coats.

Conditions during application

During application and curing:

Ambient temperature: minimum 15 °C, maximum 35 °C. Painting at higher temperatures may lead to a poor film formation.

Substrate temperature: minimum 15 °C, maximum 35 °C.

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

Relative humidity: minimum 35%, maximum 70%.

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.

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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.