YachtCoatings

CHALLENGER PRO CLEAR MATT

TECHNICAL DATA SHEET

Product description

Challenger Pro Clear Matt is a two-component acrylic matte clear varnish with a high level of opacity and scratch resistant. Challenger Pro Clear Matt protects the surface from ultraviolet rays and weather; it conveys a wonderful aesthetic effect. It is used on pastel, metallic and iridescent double coat matte bases or when a transparent coating, which guarantees excellent protection properties, is required.

Product information

Product code	690.100	
Finish	Matt (nearly 20 gloss at 60°)	
Colour	Colourless .000	
Solids (by volume)	ASTM D2369	45 ± 2%
Specific gravity	UNI EN ISO 2811-1	1,0 g/cm^3
Flash point	UNI EN ISO 13736	23 – 55 °C
VOC (calculated average content)	ISO 11890-2/2006	352 g/l
Packaging	1 Lt	

Application and use

SURFACE PREPARATION

Apply this topcoat on compatible surfaces, with a suitable and uniform colour shade. It is advisable to apply Challenger Pro Clear Matt in an homogeneous way to obtain a constant thickness. As a result, the surface will show a uniform opacity. This procedure allows application on large surfaces. Apply on surfaces treated with the products mentioned in the "Recommended products" section. Surfaces must be clean and prepared in a proper way. Before painting, make sure that all surfaces are perfectly dry, clean and without any trace of contaminants. Make sure that curing has been perfectly carried out before external exposure. In case of makeover it is necessary to reapply the matte base to obtain the desired gloss.

The graph below shows general data about the opacity degree that can be obtained mixing **Challenger Pro Clear Matt 690.100** with **Challenger Pro Clear 690.200** according to the indicated ratios**.**

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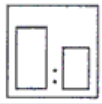
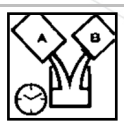
	Mixing by weight	Mixing ratio by volume with 690.999	Thinning % P698 on catalysed product	Gloss GU 60°
690.100	100	3:1	50	20
690.100 / 690.200	95 /5	3:1	50	30
690.100 / 690.200	90/10	3:1	50	50
690.100 / 690.200	85/15	3:1	50	55
690.100 / 690.200	80/20	3:1	50	65

The high rate of dilution allows a uniform application without shades.
Opacity may slightly vary according to thickness. In order to obtain a gloss uniformity, it is necessary to apply thicknesses between 40 and 50 microns.

Application data

Mixing ratio by volume		3:1
Mixing ratio by weight Base (comp. A) 690.100 Hardener (comp. B) 690.999		75 w/w 25 w/w
Pot-life NB: do not use this product when Pot-life time is exceeded		2 h at 20 °C
Thinner/Cleaning tools NB: the indicated dilution % is considered on the catalyzed product		15 – 25 °C Thinner PRO **698** (50-70% max) 22 – 35 °C Thinner PRO slow **697** (50-70% max)
Spray viscosity		14" – 16" DIN 4 a 20° C
Application methods		Conventional Pressure 3,5 bar Nozzle 1,3 mm N°2 wet on wet coverage with intermediate "flash-off" = 40 µm dry

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		Air mixed Pressure 3,5 bar Nozzle 0,7 mm – 1,1 mm N°2 wet on wet coverage with intermediate "flash-off"= 40 µm dry	
Dry film thickness per coat		Standard application range	35 – 50 µm
		Recommended	40 µm
Wet film thickness per coat		Standard application range	80 – 120 µm
		Recommended	100 µm
Theoretical coverage		40 µm	11 m^2/l
Practical coverage (loss value 30%)		40 µm	7.7 m^2/l
Recommended products		Challenger PRO SE – Challenger PRO 2L	
Note	This product is provided in two tins to be mixed entirely and carefully before use. In case it is required, dilution has to be performed after the mixing of the two components. The physical data of two-component products refer to components that have been already mixed.		

Drying time

Temperature °C		10		15		20		30	
		Min	Max	Min	Max	Min	Max	Min	Max
Wet on wet coverage				30'	180'	20'	120'	15'	60'
Sanding				78 h		48 h		36 h	
Full curing				7 days		7 days		7 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.*

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CONDITIONS DURING APPLICATION

In order to avoid the formation of condensation, the surface temperature should be at least 3 °C above dew point. During application and curing, the min. ambient temperature must not be lower than 15°C or higher than 30 °C; substrate temperature must not be lower than 10 °C, since curing is remarkably reduced at lower temperatures.
Application is recommended when the relative humidity is within the range of 30 - 80%. The term-hygrometric survey should be carried out near the surface to be coated. Make sure there is enough ventilation when the application takes place in closed areas.

Storage

It is recommended to avoid exposure to air and extreme temperatures. To maximize the shelf life in the can, it is worth checking that the container is well closed during the storage and the temperature is between 10 °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, for example. Operate in well ventilated places and, if in closed areas, use vacuum cleaners, fans and air conveyors. During the application use appropriate protections (masks, gloves, glasses, etc.). Before using, read sections 7-8 of the SDS.
INSTRUCTIONS FOR THE DISPOSAL OF PRODUCTS AND PACKAGING
Empty packaging that contained products: Dispose of empty packaging according to the requirements of the waste disposal law, for example by taking them to the recycling center.
Packages containing the unused products: Dispose of the unused product in accordance with the law of disposal of such waste, for example by taking it to a recycling center, recycling of packaging is prohibited in this case. Do not empty into drains or watercourses. Product packaging must be kept indoor, and the temperature in the storage place must be between 10 °C and 35 °C. Do not expose to sunlight.

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Notes

The values indicated in the present technical sheet can have slight variations from one batch to another. All data refer to the mixed product. The applied product must not come in contact with water, chemicals or subjected to mechanical stress before the curing is complete. The wet film thicknesses refer to the undiluted product. With dilution, this value will rise. 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 its 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.

Recommendations

This material has been tested and meets all batch quality requirements. Boero Bartolomeo S.p.A accepts no liability for any issues concerning any difference in shade that may arise.

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