

Premium Topcoat 501

Technical Data Sheet: 450-75
T series

1. Introduction

ALEXSEAL Premium Topcoat 501 is a two component, polyurethane-based coating, designed for exterior and interior applications. ALEXSEAL Premium Topcoat 501 has a high gloss wet look which provides superior distinction of image. This product has been specifically developed for the yacht industry.

The product's special characteristics ensure a reduction of cleaning and maintenance, while at the same time preserving the yacht's appearance and value. After curing, ALEXSEAL Premium Topcoat 501 offers excellent gloss and color stability values, even under extreme climatic conditions. Additionally, the material is highly resistant to UV rays, salt water, abrasion and fuel.

2. Range of application

ALEXSEAL Premium Topcoat 501 is used as an extreme high-gloss topcoat in spray applications. It can be used internally or externally in areas not subject to permanent water immersion.

3. Color

ALEXSEAL Premium Topcoat 501 is available in standard factory packaged colors and, upon request, in custom colors. Refer to the color card or product overview for part numbers.

4. Coverage

Volume Solids catalyzed without reduction: whites 42 %, colors 38 %.

Note: Coverage rates are figured for base and converter. Reducer is added as percent of total quantity of base & converter.

	m ² / liter	m ² / gal	sq. ft. / gal	@ DFT in μ m (mils)
Theoretical / Brushing and Rolling	6	22.7	244	75 (3)
Practical				
Conventional Air Spray Equipment	3.6	13.6	146	75 (3)
HVLP Air Spray Equipment	4.5	17	183	75 (3)

5. Substrate pre-treatment

The substrate must be clean, dry and free from dust, grease, oil, and other contamination. To achieve optimum performance and adhesion ALEXSEAL Finish Primer 442 is recommended. Final sanding of ALEXSEAL Finish Primer 442 should be smooth sanded with 280 - 400 grit sand paper.

ALEXSEAL Topcoat should be applied within 4 days, 2 days if outside after sanding to ensure adhesion. For inside applications talk about extended times with your sales rep.

6. Trade names & Packaging

T....	ALEXSEAL Premium Topcoat 501 (Base Color)	1 QT & 1 Gal
C5051	ALEXSEAL Topcoat Converter Spray	1 QT & 1 Gal
C5012	ALEXSEAL Topcoat Converter Brush	1 Pt & ½ Gal
R5070	ALEXSEAL Topcoat Reducer Fast (spray)	1 QT & 1 Gal
R5050	ALEXSEAL Topcoat Reducer Medium (spray)	1 QT & 1 Gal
R5030	ALEXSEAL Topcoat Reducer Slow (spray)	1 QT & 1 Gal
R5015	ALEXSEAL Topcoat Reducer Brush	1 QT & 1 Gal
A5018	ALEXSEAL 501 Topcoat Roll Additive	4 Ounces
A5035	ALEXSEAL Topcoat Accelerator	4 Ounces

7. Mix Ratio Spray

1 part by volume	T....	ALEXSEAL Premium Topcoat 501 (Base Color)
1 part by volume	C5051	ALEXSEAL Topcoat Converter Spray
30 to 37.5 % by volume	R....	ALEXSEAL Topcoat Reducer (choose from list above)

Example: 1 : 1 : $\frac{3}{4}$ = 37.5 % reduction
 The amount of reducer required may vary depending on the application conditions.
 Mixed material must be filtered before application with 25 μ m paint filter.

8. Mix Ratio Brush/Roll

2 parts by volume	T....	ALEXSEAL Premium Topcoat 501 (Base Color)
1 part by volume	C5012	ALEXSEAL Topcoat Converter Brush
16 to 33 % by volume	R5015	ALEXSEAL Topcoat Reducer Brush

Example: 2 : 1 : 1 = 33 % reduction

Professional Use Only

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The amount of reducer required may vary depending on the application conditions. Additional reducer may be added to prior mixed paint pot during the application and will improve flow out consistency and results.

Note: A 15-minute induction period after mixing the A5018 Alexseal Topcoat Roll Additive into the mixed base and converter, will improve the performance and results of the A5018 Roll Additive. Add reducer afterwards and roll onto the appropriately prepared surface.

Mixed material must be filtered before application with **25µm paint filter**.

9. Application

Viscosity Zahn #2 Signature Cup: ≈ 15 - 17 sec, DIN 4 cup 4mm: ≈ 12 - 16 sec,

ISO 3mm ≈ 45-55 sec

Nozzle Size Gravity Gun 1.0 to 1.4 mm (0.039 to 0.055) - Conventional & HVLP

Nozzle Size Siphon Cup 1.6 mm (0.063) - Conventional & HVLP

Fluid Nozzle Size Pressure Pot 1.0 to 1.3 mm (0.039 to 0.051) - Conventional & HVLP

Atomizing Pressure 3.0 to 5.0 bar (42 to 60 PSI) - Conventional & HVLP

Pot Pressure 0.7 to 1.5 bar (10 to 20 PSI) - Conventional & HVLP

Airmix Equipment 0.18 to 0.28 mm (0.007 to 0.011)

Inlet pressure 3.0 to 5.0 bar (42 to 70 PSI)

- Application by Spraying: Apply per coat a wet film thickness (WFT) of 50 - 75 microns (2 - 3 mils). Allow 20 - 60 minutes tack up between coats. This will achieve a dry film thickness (DFT) of 30 - 50 microns (1.5 - 2 mils) for a 2 coat application. For a 3 coat application, this will achieve a dry film thickness (DFT) of 50 - 70 microns (2 - 3 mils). Maximum recommended film thickness during a spray application is 3 coats totalling 300 microns (12 mils) WFT, or 100 microns (4 mils) DFT.
- Application by Brush/Rolling: Apply 2 to 3 coats to a wet film thickness (WFT) of 50 - 75 microns (2 - 3 mils) per coat. Each coat should dry to a tape dry stage, 12 - 24 hrs. Sand with 320 - 400 between coats. This will achieve a dry film thickness (DFT) of 30 - 50 microns (1.5 - 2 mils) for a 2 coat application. For a 3 coat application, this will achieve a dry film thickness (DFT) of 50 - 70 microns (2 - 3 mils).
- Application by Rolling only: A5018 Roll Additive is used to reduce the need to tip off with a brush when roller applying the Topcoat 501. A5018 Roll Additive will let the bubbles in the film pop out before the paint film tacks up. Per each mixed (catalyzed and reduced) 1 quarts (1 liters) of ALEXSEAL Premium Topcoat 501, a maximum of 1 cap or 10 ml ($\frac{1}{3}$ ounce) of A5018 ALEXSEAL Topcoat 501 A5018 Roll Additive may be added.
- Accelerator: A5035 ALEXSEAL Topcoat 501 Accelerator is used to reduce the drying time of ALEXSEAL Premium Topcoat 501. Per each mixed (catalyzed and reduced) 2 quarts (2 liters) of ALEXSEAL Premium Topcoat 501, a maximum of 1 cap or 10 ml ($\frac{1}{3}$ ounce) of A5035 ALEXSEAL Topcoat 501 Accelerator may be added. Additional quantities of accelerator reduce pot life, and are not recommended.

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10. Pot life and Drying

Optimal application environment range - min. 15°C (60°F) 40% RH, up to max. 30°C (85°F) 80% RH

Temperature for minimum recoat time	15°C (60°F)	20°C (68°F)	25°C (77°F)	30°C (85°F)	Max Dry Time
Pot Life - approx.	6 hrs	6 hrs	4 hrs	4 hrs	N/A
Pot Life - with A5035 ALEXSEAL Topcoat 501 Accelerator	3 hrs	3 hrs	2 hrs	2 hrs	4 hrs
Dust Free	90 min	60 min	45 min	30 min	N/A
Tape Dry - without accelerator	36 hrs	30 hrs	24 hrs	18 hrs	N/A
Tape Dry - with A5035 ALEXSEAL Topcoat 501 Accelerator	30 hrs	24 hrs	18 hrs	12 hrs	N/A
Fully Cured - without accelerator	21 days	18 days	14 days	10 days	N/A
Spray Recoat after tack up with additional coats of ALEXSEAL Premium Topcoat 501	90 min	60 min	45 min	30 min	16 hrs
Brush/Roll Recoat after tack up with additional coats of ALEXSEAL Premium Topcoat 501	12 hrs	8 hrs	6 hrs	6 hrs	24 hrs
Overcoat with another product. Preparation including sanding is required after max. time	24 hrs	24 hrs	24 hrs	24 hrs	N/A

Note: The above chart reflects approximate minimum and maximum time. Surface temperature, air flow, direct or non-direct sunlight, quantity and or choice of reducer, and film thickness will affect actual tack up, recoat, overcoat, and drying times during application. During the drying phase the minimum temperature is 15°C (60°F). Ideal temperature: 25°C (77°F). The minimum application condition should be 3°C (5.4°F) above dew point.

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