

Protective Primer 161

Technical Data Sheet: 153-60
P1610

1. Introduction

ALEXSEAL Protective Primer 161 is an epoxy-based two-component primer. Due to specific corrosion inhibitors and a combination of epoxy resin binding agents, this primer offers excellent adhesion promotion on all substrates as well as corrosion protection on steel and aluminium substrates. The long re-coating time of 6 months without sanding allows an economical application process. After curing, ALEXSEAL Protective Primer 161 is the ideal adhesion promoter for additional layers of ALEXSEAL products. ALEXSEAL Protective Primer 161 has been approved by IMO Resolution MSC.307 (88)-(FTP-Code 2010) as marine paint with low flame-spread characteristics.

2. Range of application

ALEXSEAL Protective Primer 161 is used for corrosion protection and adhesion promotion on steel and aluminium substrates, both above and below the waterline.

3. Color

Color of mixture: White
Base Material: White
Converter: Clear

4. Coverage

Volume Solids catalyzed without reduction: 48 %

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	Rec. DFT in μm(mils)
Theoretical	4,8	18	196	80–100 (3–4)
Practical				
Conventional Air Spray Equipment	2.4	9.2	100	80–100 (3–4)
HVLP Air Spray Equipment	2.6	10.2	110	80–100 (3–4)
Airless Equipment	2.9	11.2	120	80–100 (3–4)
Brush / Roller	3.5	13.2	142	80–100 (3–4)

5. Substrate pre-treatment

The substrate must be clean, dry and free from dust, grease, oil and other contamination. ALEXSEAL Protective Primer 161 is applied directly to the properly cleaned and prepared substrate (ideally within 6 hours). To achieve optimum adhesion and performance:

Steel should be prepared by sandblasting to a minimum of near white metal, SA 2.5 (SSPC – SP10 - 85) or ground (P36 to P40 grit) to a 50 - 100 micron (2 - 4 mils) profile.

Note: White metal Sa 3 (SSPC-SP5-85 is preferred).

Aluminium should be sandblasted or ground (36 to 60 grit) to bright clean aluminium with a 50 - 100 micron (2 - 4 mils) profile.

ALEXSEAL Protective Primer 161 may be applied as a tie coat primer before a fairing application over gel coat and raw resin lay-up.

Gel coat must be sanded with P80 - P100 grit.

Fiberglass resin should be ground with P36 - P60 and / or sand blasted. The surface and the bottom of any profile should be dull and abraded with no shiny spots.

6. Trade names & Packaging

P1610	ALEXSEAL Protective Primer 161 White	1 Gal & 5 Gal
C1617	ALEXSEAL Protective Primer 161 Converter	0.167 Gal (for 1 Gal) and 0.833 Gal (for 5 Gal)
R4042	ALEXSEAL Epoxy Primer Reducer	1 QT & 1 Gal

7. Mixing ratio

6 parts by volume	P1610	ALEXSEAL Protective Primer 161 Base
1 part by volume	C1617	ALEXSEAL Protective Primer 161 Converter
5 - 10% reduction (vol.)	R4042	ALEXSEAL Epoxy Primer Reducer

Example: 6 : 1 : 1/2 = 7 % reduction

The amount of reducer required may vary depending on the application conditions. For special application reduction can be added up to 25%.

Professional Use Only

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8. Application

Viscosity	Zahn #2: ≈ 80 sec, DIN 4 cup 4mm: ≈ 70 sec
Nozzle Size Gravity Gun	1.8 – 2.5 mm (0.071 to 0.098) - Conventional & HVLP
Nozzle Size Siphon Cup	1.6 mm (0.60) - Conventional & HVLP
Fluid Nozzle Size Pressure Pot	1.4 to 1.6 mm (0.055 to 0.063) - Conventional & HVLP
Atomizing Pressure	2.0 to 4.0 bar (30 to 60 PSI) - Conventional & HVLP
Pot Pressure	0.7 to 1.5 bar (10 to 22 PSI) - Conventional & HVLP
Airless Equipment	Tip 0.35mm / 60° to 0.43mm / 60° (0.014 / 60° to 0.017 / 60°) Inlet Pressure 2 to 3 bar (29 to 44 PSI)

Application by Spraying Apply 1 cross coat or 2 coats to a total wet film thickness (WFT) of 200 - 300 microns (8 - 12 mils). This will achieve a dry film thickness (DFT) of 90 - 135 µm.

9. 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.	8 hrs	8 hrs	6 hrs	4 hrs	N/A
Dust Free	40 min	30 min	20 min	10 min	N/A
Tape Dry	30 hrs	24 hrs	20 hrs	16 hrs	N/A
Fully Cured	11 days	9 days	7 days	5 days	N/A
Recoating with another coat of ALEXSEAL Protective Primer 161. Sanding is required after the maximum time.	6 hrs minimum	4 hrs minimum	2 hrs minimum	2 hrs minimum	6 months maximum
Overcoat with other products including 202, 212, 302, 303, 328, 442, 414 and 501. Preparation including sanding is required after maximum time.	32 hrs minimum	16 hrs minimum	16 hrs minimum	12 hrs minimum	6 months maximum

Note: The above chart reflects approximate minimum and maximum time. Surface temperature, air flow, direct or non-direct sunlight, quantity 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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