Envirolak

Technical Data Sheet
ELPR170-TB
Revision Date: 2/8/2024

PRODUCT CODE: **ELPR170-TB**

NAME: **Envirothane 170-TB White Primer High Solids**

DESCRIPTION: ELPR170-TB is a universal urethane primer that provides an excellent foundation for any solid colour systems on MDF as either a 1K or 2K product. When using PR170-TB on veneer, solid wood or in a refinish situation it is necessary to use the product as a 2K system by adding CAT100-LV Hardener to improve adhesion and prevent cracking or checking of veneers and soft woods. This 70% solids high-hide primer lays down very flat and provides unsurpassed filling properties especially for MDF, where it does not swell the fibers like other water based products in the market. It offers fast dry times and is easy to sand without being easy to sand through. ELPR170-TB offers all the same properties as our ELPR170 with the addition of a tannin blocking additive.

USES: This product is designed for interior wood finishing applications such as cabinetry, tables, furniture and millwork.

PRODUCT PREPARATION: Reduction is not required when spraying with Air Assisted Airless or Airless, however, adding 3% RX010 reducer will help the product to lay down extremely flat reducing the amount of sanding required to level sand prior to top coating. Reduction is reccomended for pressure pots, HVLP turbine, conventional cup guns or brush and roll. Product should be at room temperature and mixed thoroughly prior to application. Drill mix any soft settling off the bottom of a can is reccomended.

CATALYST RATIOS USING CAT100-LV HARDENER	**ELPR170-TB**	**by weight 5%**
	(approx. 2 hr pot life @~5%)	1.2kg (1 can) per 22.7kg (4 GA) pail
	(approx. 4 hr pot life @~2.5%)	300g (1/4 can) per 5.65kg (1 GA)
		by volume 5%
		1060mL/36oz.(1 can)per 4 GA pail
		240mL/8oz.(1/4 can) per GA

RECOMMENDED APPLICATION:		
Spray type:		Air Assisted Airless
Fluid Pressure:		500-800 PSI
Air Pressure:		25 PSI (triggered)
Tips:	Kremlin	06114, 09114, 09154
	Wagner	1150, 1350, 1360, 1380
	Graco/CA and others	411, 413, 511, 513, 611, 613
Reduction:	Hand Spray	Not required, 3% RX010 suggested
Reduction:	Machine Spray (Recip or Rotary)	Add 5% RX010 & 1% RX114

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	Spray type:	Airless
	Fluid Pressure:	2000-3000 PSI
	Tips: Fine Finish, Ultra Finish or Skill Tip	308, 408, 508, 410, 09-17
	Reduction: Hand Spray	Not required, 3% RX010 suggested
	Reduction: Machine Spray (Recip or Rotary)	Add 5% RX010 & 1% RX114
	Spray type:	HVLP (Turbine) 5 stage or higher
	Air Pressure:	Max
	Needle:	1.8-2.0 needle high solids air cap
	Reduction:	10% ELRX010 or 20-30% water
	Spray type:	Cup Gun (gravity)
	Air Pressure:	30-40 PSI
	Tips:	1.8 needle
	Reduction:	2-5% ELRX010 or 10-15% Water
	Brush:	Medium/Firm Nylon or Polyester
	Roll:	Mohair, Velour or 3/16 Microfiber
	Reduction:	3-5% ELRX010 or 10-15% Water
	Wet Film Build:	4-6 mils
	Grams per 1/10 sq. metre: (250x400mm board)	16g - 24g
	Number of Coats:	1-2 depending on desired look
	Maximum Dry Film Build:	6 mils
	Coating Temperature at Application:	20°C (68°F) or higher
	*for colder temperatures, add reducer (ELRX010) or warm material prior to spraying	
PHYSICAL PROPERTIES:	Specific Gravity:	1.5 ± 2%
	Viscosity:	2500cps @20°C
	Solids Content:	70% by weight
	Pot Life:	None
	Flash Point:	>75°C
	VOC's:	54 g/L, 0.45 lb/gal
	VOC's (Less Exempt):	62 g/L, 0.51 lb/gal

SANDING:

Sand raw wood or veneer with 150 or 180 grit to remove any mill glaze or oxidation. Sand MDF with 240 - 320 grit sandpaper especially any machined (saw marks, edges & routed-out areas) prior to applying primer. Sand primer with 320/400 grit sandpaper or fine/super fine sponges. Two coats can be applied same day back-to-back without sanding between and still acheive good adhesion, a quick scuff is required if more than 8 hours elapsed between coats. All of our primers must be sanded same day as topcoat application as they cure quickly, if the primer is sanded and left overnight it will require a quick scuff with maroon scotchbrite or a super fine sponge for adhesion before applying topcoat.

DRYING TIMES:

Air dry:	Dry to Touch	10 Minutes
(20°C/68°F)	Dry to Sand	40-60 Minutes
	Dry to Stack	12 Hours

Note: Good gentle air movement (not a hurricane) with a recirculator or fan while parts are drying will reduce dry to sand times by 20-40% with reasonable humidity levels (<65% r.h.). Lower temperatures or higher humidity will extend dry times.

Conventional Oven:	Dry to Touch	5-10 Minutes
(40-45°C/104-113°F)	Dry to Sand	15-25 Minutes
	Dry to Stack	1-3 Hours

Sun-Spot IR Cure:	Flash off	1-2 Minutes
(Recommended)	Direct Cure	5 Minutes @60-70°C (140-160°F)
	Rack Cure (Indirect no probe mode)	10-15 Minutes @20%+ power
	Cool Down	10-20 minutes

Product is dry to sand (or stack) after cooling

TYPICAL SYSTEMS: **Note: Two coats of PR170-TB can be applied same day without sanding between.**

Refinish - Over Old Finishes

Substrate: Old Honey Oak with Pre-cat Lacquer (from your uncles house in 1980)

Prep: Degrease, premix 1 part RX110 (Enviroklean) - 4 parts water, spray on surface, scrub with marroon scotchbrite or stiff nylon brush to loosen grease and contamination, wipe clean with wet rag with water to remove Enviroklean, wipe again with a dry rag to remove any remaining EnviroKlean or grease, allow to dry and sand with 180 grit or fine sponges

1 or 2 coats, ELPR170-TB White Primer with 2.5% - 5% by vol. ELCAT100LV Hardener
Sand using 320/400 grit sandpaper, refine with fine/super fine sponges
1 or 2 coats ELNYW200XX or ELACW400XX or EL100XX Topcoats 1K or 2K or ELNYW800XX 1K or with Crosslinker

New Construction - Solid Wood Frame with Veneer or MDF Center Panel

1 or 2 coats, ELPR170-TB White Primer with 2.5% - 5% by vol. ELCAT100LV Hardener
Sand using 320/400 grit sandpaper, refine with fine/super fine sponges
1 or 2 coats ELNYW200XX or ELACW400XX or EL100XX Topcoats 1K or 2K or ELNYW800XX 1K or with Crosslinker

TYPICAL SYSTEMS: **New Construction - Whites or Light Colours:**

Substrate: MDF
ELPR170-TB Envirothane White Primer 1K or 2K
Sand using 320 grit sandpaper or fine sponge
ELPR170-TB Envirothane White Primer 1K or 2K
Sand using 320/400 grit sandpaper, refine with fine/super fine sponges
1 or 2 coats ELNYW200XX or ELACW400XX or EL100XX Topcoats 1K or 2K or ELNYW800XX 1K or with Crosslinker

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TYPICAL SYSTEMS:

New Construction - Dark Colours:
Substrate: MDF
ELPR170-TB Envirothane White Primer 1K or 2K + 5% 896-9901 Black (makes dark grey)
Sand using 320 grit sandpaper or fine sponge
ELPR170-TB Envirothane White Primer 1K or 2K + 5% 896-9901 Black (makes dark grey)
Sand using 400 grit sandpaper, refine with super fine sponges
1 or 2 coats EL100XX Series Envirothane 1K or 2K tinted to dark colour

CLEANING:

Flush all equipment with water until it runs clear. Built-up coating and deep cleaning can be performed using ELRX110 EnviroKlean WB Cleaner. For best results cleaning tips, aircaps and unpainted parts use ELRX110 for one hour or 10-20 minutes in an Ultrasonic bath (max. temp. 50°C/120°F). Do not leave painted parts (i.e. spray guns) in ELRX110 for more than 20 minutes.

GENERAL INFORMATION:

Use stainless steel (304/316) equipment for all water based products. When switching between solvent and water based products in the same spray equipment we suggest the following:

From Solvent to Water: Wash with acetone, then wash with water.
From Water to Solvent: Wash with water, then wash with acetone.

Keep containers closed when not in use and keep from freezing.
These products are designed for industrial use only. Please refer to the Safety Data Sheet prior to use.

SHELF LIFE:

12 months in unopened containers

STORAGE:

Store in a tightly closed container at room temperature (18-25°C/64-75°F) and protect from direct sunlight and foreign material. Do not store at temperatures below 5°C/41°F.

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