



Interior Hi-Build Wood Clear Coat

FLEXIBLE POLYESTER TOPCOAT

Technical Data

April 2017

Product Description

This clear, sprayable, polyester topcoat provides maximum clarity, gloss and DOI. It also exhibits excellent flexibility.

General Rules

1. This product should be stored no longer than 12 months from date of manufacture. It should be kept in its original container in a dark, cool, dry place away from a source of heat. Optimum storage conditions will be 65-85F and 35-75% RH. After a container is opened it should be resealed ASAP and used within 7 days.
2. Best ambient conditions during application should be 70 - 85F and 35 - 75% RH
3. The moisture content of the substrate should range from 8 - 12%.
4. An 40X610/609 Series Sealer must be applied before coating on woods such as Teak, Rosewood, and other exotic woods with a high content of tannin and natural oils. Stains should be applied **before** Sealer.
5. To avoid contamination/ moisture entrapment in raw wood or at the Hi-Build level, allow Sealer to dry a minimum of 30 minutes before handling or overcoating and always wear powder-free latex gloves when handling parts to avoid finger prints.

Mixing Instructions

The Hi-Build Wood Flex Polyester Topcoat (FR) requires the user to add both promoter and catalyst just prior to use. The standard additions are as follows:

A) **Promoter:** Add 1-2% by volume of **WP-607 Polyester Promoter**. This mixture will be stable approximately 8 hours without a noticeable rise in viscosity. (This material must be agitated 3-4 minutes before adding catalyst. If not agitated, combustibility may occur).

B) **Catalyst:** Add 2% by volume **WC-601 Polyester Catalyst**. This catalyst provides minimal dry times. Once catalyzed, however, the usable pot life is approximately 10-12 minutes (temperature dependent). Mix only an amount that can be sprayed in this time frame.

ATTENTION: DO NOT MIX CONCENTRATED WP-607 PROMOTER AND WC-601 CATALYST TOGETHER. THIS MIXTURE CAN RESULT IN A VIOLENT CHEMICAL REACTION!

		<u>5 Gallon Mix</u>	<u>1 Gallon Mix</u>	<u>1 Quart Mix</u>
41X635	Hi-Build Clear base	20,000 ml	4,000 ml	1,000 ml
WP-607	Polyester Promoter			
	Use at 1.0% mix	200 ml	40 ml	10 ml
				20 ml
WC-601	Use at 2.0% mix	400 ml	80 ml	
	Polyester Catalyst	400 ml	80 ml	20 ml

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Reduction-Viscosity

The Hi-Build Clear polyester topcoat is formulated at a higher than normal spray viscosity. This is done to allow the user to compensate for temperature conditions, sprayer preferences, and varying spray equipment. If necessary a maximum reduction of 10% by volume can be added to provide better leveling and flow. If ambient temperature is below 85 degrees F (27 degrees C), reduce with **WR-612** Solvent / Reducer. During warm summer months when ambient temperatures exceed 85 degrees F, reduce with **WR-613** Solvent / Reducer. We do not recommend spraying polyesters when ambient conditions are over 95 degrees F (35 degrees C) or the relative humidity above 75%, because the dry time and gel time become too fast which can cause "solvent pop" and other surface problems.

Spraying

Most spray equipment can be used*. It is important that the topcoat be applied as "wet" as possible without sagging (approximately 4 - 6 wet mils gives best results). Keep air pressure low, i.e. 30 - 45 psi at the gun. Avoid dry spraying. Unlike lacquers, polyesters do not have enough solvent to completely re-wet dry spray.

* Recommended Spray Equipment:

Graco	700N Conventional spray gun 1.8 mm #2N tip and needle, #21 air cap
DeVilbiss	JGHV530 HVLP spray gun (pressure feed) FX tip and needle, #705 air cap

Dry Time

Note: Ambient temperature has a significant impact on dry times. For example, subjecting the part to 15 minutes of warm moving air after 15 minutes of flash time at 100F will reduce the print free time by 50 - 75%. Conversely, it is important to note that the chemical reaction during curing will stop at temperatures below 68F (20C) or a relative humidity below 35%.

Insulate substrate with a 1:1 mix of 40X610 and 40X609. Spray about 2 wet mils and dry for 20-30 minutes. Scuffing is not necessary if Hi-Build clear is applied within four (4) hours of spraying the sealer. If the Hi-Build is to be applied after four (4) hours, the Sealer should be lightly scuffed with 320 grit sandpaper just prior to applying the 40X610.

The **Hi-Build base (41X635)** should be catalyzed with 1-2% **WP-607 promoter** depending on the ambient temperature and humidity. Please refer to technical data sheet. It is recommended that a 2% addition of **WC-601 Catalyst** remain constant. The **WP-607** should be added first and mixed in well. The **WC-601** should be added when the substrate is totally prepared and ready to be sprayed. The pot life is approximately 10-12 minutes. Apply 4 to 8 wet mils per coat. Allow the material to flash off for 15-30 minutes or until tacky before applying the next coat.

The number of coats to be applied is dependent on the porosity of the substrate and the depth desired. The norm is 2 to 4 coats.

Allow the final coat to dry a minimum of 24 hours before sanding and buffing. The addition of heat and moving warm air will aid in the curing process. If heat is available, it should not exceed 120 degrees F. The longer the topcoat is cured the less post-shrinkage will occur. The chemical reaction of the Catalyst with the Polyester is complete after 72 hours at room temperature.

To alleviate cracking of finished product when it is cut or drilled, the exposed area should be resealed with the polyester by catalyzing a small amount then apply by brush.

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Buffing Process

NOTE: Buffing process may vary according to customer's choice.

Process is as follows: 800 Grit Dry 3M Paper 15
Micron 3M Polishing 9
Micron 3M Polishing 3
Micron 3M Polishing

Finally buff and polish with Finesse-it (3M Part #051141-13084) compound.

Physical Properties

Weight per Gallon- 8.93-9.33 lb
Non Volatile- 59-63%
Viscosity- 30-40 seconds #4 Ford Cup / 42-52 seconds #2 Zahn "EZ"
Weight Density- 6.00 lbs/1000 square feet @ 1 mil
Color- slightly amber clear

Precautions

Use with adequate ventilation and proper respiratory protection. See MSDS for complete details of composition and precautions.

DISCLAIMER: The technical information and suggestions for use have been compiled for your guidance and usage. Such information is based on Oceanair Performance Coatings' experience and research and is believed to be reliable. As Oceanair has no control over conditions in which the product is used, stored or otherwise handled, the above information does not constitute a warranty. Buyers must assume responsibility for the suitability of the product for their purpose.

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