

# Polyester Laminating/Finishing Resin



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## POLYESTER LAMINATING/FINISHING RESIN

### Description:

Polyester Laminating/Finishing Resin is an Ortho GP, thixotropic, polyester resin designed for fabrication of small to large FRP parts at an ambient temperature. This product is pre-promoted for curing at room temperature with the addition of methyl ethyl ketone peroxide (MEKP) catalyst. Material is designed to be used with both the spray-up and hand layup application techniques. Uses include yacht/boat construction and manufactured parts.

### Features:

- Extremely fast wet out and roll out
- Ortho
- Thixotropic
- Moderate trim time
- Early development of Barcol Hardness
- Little or no pattern transfer through gelcoat surfaces

### TYPICAL PROPERTIES \*1

#### Uncured Resin

<u>Test</u>	<u>Value</u>
Viscosity, 77° F	350-450 cps
Specific Gravity, 77° F / 77° F	1.21
Curing Property, 77° F	1% MEKP 9% active
Gel Time 77° F	Varies
Time to Peak	Varies
Thix Index*1	1.7-2.2
Peak Exothermic Temperature	122° F- 158° F

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\* 1. 6RPM/60RPM (Brookfield Viscometer)

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### Cured Resin \*2

<u>Test</u>	<u>Value</u>
Tensile Strength	8,958 psi
Flexural Strength	17,205 psi
Flexural Modulus	639,874 psi
Tensile Modulus	682,532 psi
Barcol Hardness, 934-1	41
Water Absorption	.25%

### Laminated Physical Properties \*3

<u>Test</u>	<u>Value</u>
Tensile Strength	15,215 psi
Flexural Strength	25,453 psi
Flexural Modulus	966,920 psi
Tensile Modulus	1,109,114 psi
Barcol Hardness, 934-1	45
Glass Content	31.5%

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\* 2. Thickness: 3 mm  
After Cure: 230°F x 2hrs

\* 3. #450 Chopped Strand Mat 2 plies  
#570 Roving Cloth 2 plies  
Glass Content: 40%  
After Cure: 104°F x 16 hrs

### Handling & Storage

MEKP catalyst (included) is required for using TotalBoat Polyester Resin. As with all polyester resins, rate and degree of cure are a function of catalyst concentration and of temperature. Resin and work area should be between 70°F and 95°F to ensure satisfactory results.

**Directions:** 7-8 drops of MEKP catalyst are recommended for one ounce of TotalBoat Polyester Resin (@77°F). Mix thoroughly for at least one minute and apply immediately after. Adjust the amount of catalyst slightly as needed—more MEKP catalyst for cooler conditions and less catalyst for warmer conditions. Catalyst levels should be within a range of 1.0-2.2% based on weight of resin. The use of catalyst levels outside of this range may result in an inadequate cure, with laminates exhibiting moderate to severe post cure after demolding.

**Additional Information for Polyester Laminating Resin:** TotalBoat Polyester Laminating Resin does not contain wax, and will remain tacky once cured with MEKP. For a tack-free cure, you can coat it with PVA (polyvinyl alcohol), or with TotalBoat Polyester Finishing Resin (that contains wax). Alternatively, you can add paraffin wax additive to the laminating resin before catalyzing with MEKP (1 oz. of wax per quart of laminating resin).

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## Polyester Laminating/Finishing Resin

To ensure maximum stability and maintain optimum resin properties, resins should be stored in closed containers at temperatures below 77°F, and away from heat sources and sunlight. All storage areas and containers should conform to local fire and building codes. Stock should be stored away from all sources of flame or combustion. Inventory levels should be kept to a reasonable minimum, with first-in, first-out stock rotation.

### Safety

**Read and understand the Safety Data Sheet (SDS) before working with this product**

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