

Product Data



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R-0503 POLYESTER LAMINATING RESIN

HK Research series laminating resins are based on high-grade general purpose polyester resins. These products are designed for uses where good physical characteristics are required at a moderate cost.

The R-0503 laminating resin is a rigid, thixotropic, promoted laminating resin. The R-0503 is designed for use in hand layup or spray-up processes.

TYPICAL PROPERTIES OF LIQUID RESIN

Weight per gallon	@ 77°F	9.20 lbs.
Specific Gravity	@ 77°F	1.10
Viscosity, Brookfield	@ 77°F	
6 RPM:		1500-1900 cPs
60 RPM:		500-700 cPs
Thixotropic Index:		2.5 - 3.0
Monomer		Styrene
Color		Pink
Shelf Life	@ 77°F	
Uncatalyzed		3 months
Catalyzed 1.25% MEKP		20-25 minutes

TYPICAL PROPERTIES OF CURED CASTING (1/8" THICK)

		<u>TEST METHOD</u>
Specific Gravity	1.21	
Water Absorption (Immersed 24 hrs @ 77°F)	0.22%	
Barcol Hardness	40-50	934-1
Flexural Strength	13,100 psi	ASTM-D-790
Flexural Modulus	5.0 X 10 psi	ASTM-D-790
Tensile Strength	7,200 psi	ASTM-D-638
Compressive Strength	15,000 psi	ASTM-D-695
Heat Distortion Temp.	65°C.(149°F.)	ASTM-D-648

CATALYZING INSTRUCTIONS

The following table illustrates the approximate cup gel times, which will be obtained at various catalyst concentrations and temperatures.

<u>% MEKP</u>	<u>AMBIENT TEMPERATURES °F.</u>	<u>GEL TIME, MINUTES</u>
1.25	77	20-25
0.6	77	40-50
1.25	65	35-45
0.6	65	55-65

SAFETY CONSIDERATIONS

The HK Research produced laminating resins are based on a resin that contains styrene monomer, which is a flammable liquid. Keep away from sparks, heat and open flame (including pilot lights). Electrical equipment should be vapor-proof and protected from breakage.

Styrene vapors are heavier than air and tend to concentrate in the lower areas of the molds and in the pockets immediately above the floor area. To keep vapors within a safe limit in all areas, adequate ventilation or suction fans should be used that will remove these styrene monomer vapors.

All equipment must be grounded - including spray guns and molds.

Both the polyester resin and the catalyst may cause burns to eyes and skin. Avoid contact with the eyes! Avoid breathing vapors! Laminators should wear a NIOSH approved respirator effective for vapors, spray mist and dust. In case of accidental contact, remove contaminated clothing and wash affected skin areas with soap and copious quantities of water. Contact a physician if persistent skin irritation occurs. For eyes, immediately flush with plenty of water for at least 15 minutes; call a physician immediately. Wash contaminated clothing before reusing.