

**POLYLITE® 31830-00**  
**FLEXIBLE ISOPHTHALIC BASE OR BLENDING RESIN**

**DESCRIPTION**

POLYLITE® 31830-00 is an unsaturated, unpromoted polyester resin. This flexible, low reactivity, low-viscosity resin is usually blended with rigid resins to improve resilience and impact strength, but it can also be used alone. Because POLYLITE® 31830-00 is based on isophthalic acid, it resists corrosion, stains, and thermal shock better than many other flexible base resins. It is compatible with most general-purpose and isophthalic resins. POLYLITE® 31830-00 can be cured at room temperature with the addition of the proper promoters and peroxide catalysts.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>• Flexible</li> <li>• Isophthalic acid-based</li> <li>• Low shrink</li> <li>• Manufactured using statistical process and quality controls</li> </ul>	<ul style="list-style-type: none"> <li>• 50% elongation at failure</li> <li>• Resists corrosion</li> <li>• Resists stain</li> <li>• Resists thermal shock</li> <li>• Toughness</li> <li>• Good adhesion</li> <li>• Consistent performance, batch-to-batch</li> </ul>

**PROPERTIES**

**PHYSICAL DATA IN LIQUID STATE AT 25°C / 77°F - POLYLITE® 31830-00**

Properties	Unit	Value
Non-Volatiles, NV	%	69.5
Viscosity - Brookfield, LVF, spindle #3/60 rpm	Cps / mPa's	800
Specific gravity/Density	g/cm <sup>3</sup>	1.14
SPI Gel time, 150-190°F	minutes	6
Cure Time, 190°F to Peak	minutes	4
Peak Exotherm	°C / °F	163 / 325
Flash point (Seta Closed Cup)	°C / °F	31.6 / 89
Color Liquid		Amber
Shelf life, minimum **	months	3

**TYPICAL MECHANICAL PROPERTIES\***

Properties at 25°C / 77°F	Unit	Test Method	1/8" / 3.2 mm Clear Casting
Shore-D Hardness	-	D 2240	74
Flexural Strength	psi	D 790	Yields
Flexural Modulus	kpsi	D 790	Yields
Tensile Strength	psi	D 638	2000
Tensile Elongation at break	%	D 638	50

\*Clear casting initiated with 1% benzoyl peroxide, step-cured to a final post-cure of 2 hours at 250°F.

## **STORAGE**

This product is available as non-returnable 55-gallon metal drums (500 lbs. net) or 40,000-44,000-lb. tank truck.

To ensure maximum stability and maintain optimum resin properties, resins should be stored in closed containers at temperatures below 75°F (25°C) and away from heat sources and sunlight. All storage areas and containers should conform to local fire and building codes. Drum 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.

Additional information on handling and storing unsaturated polyesters is available in Reichhold's application bulletin "Bulk Storage and Handling of Unsaturated Polyester Resins." For information on other Reichhold resins or initiators, contact your sales representative or authorized Reichhold distributor.

## **SAFETY**

### **READ AND UNDERSTAND THE MATERIAL SAFETY DATA SHEET BEFORE WORKING WITH THIS PRODUCT**

Obtain a copy of the material safety data sheet on this product prior to use. Material safety data sheets are available from your Reichhold sales representative. Such information should be requested from suppliers of all products and understood prior to working with their materials.