PRODUCT BULLETIN

June 2018

POLYLITE® 31003-00

Isophthalic Base Resin

DESCRIPTION

POLYLITE® 31003-00 is a rigid, medium-reactivity, isophthalic acid-based, unsaturated polyester resin designed for the pultrusion process. It is formulated for pultruding composites with wall thickness ½" and greater.

BENEFITS & FEATURES

- Production of chemical process and industrial equipment
- Tooling and mold fabrication
- Filled coating and lining systems
- Molded products requiring improved properties of isophthalic resin

PROPERTIES – LIQUID

Property(1)	Unit	31003-00
Color, APHA (max.)	-	300
NVM	%	60
Viscosity(2)	cps	1,050
SPI Gel Time(3)	minutes	5.25
SPI Cure	minutes	2.25
SPI Peak Exotherm	°C/°F	227/440
Specific Gravity	-	1.12

1) All properties at 25°C/77°F unless otherwise noted
2) Brookfield Viscometer RVF Spindle #3 at 20 RPM
3) 150-190°F

PROPERTIES – PHYSICAL

Property(1)	Unit	Neat Resin Casting(2)	Test Method
Tensile Strength	psi	10,000	ASTM D 638
Tensile Modulus	psi	599,000	ASTM D 638
Tensile Elongation	%	2.20	ASTM D 638
Flexure Strength	psi	16,000	ASTM D 790
Flexure Modulus	psi	584,000	ASTM D 790
Heat Deflection Temperature	°C/°F	120/248	ASTM D 648
Hardness, Barcol Model 934-1	HB	44	ASTM D 2583
Water Absorption - 2 hours at 212°F - 24 hours at 73°F	 % gain % gain	 0.46 0.18	ASTM D 570

1) Physical properties were determined using internal Polynt test methods that are similar to those listed above.
2) Clear casting with 1.0% BPO crystals; Overnight cure @ 130°F, post-cured for 3 hrs. @ 180°F and 2 hrs. @ 250°F

APPLICATION

Each user must determine the suitability of this product to his/her particular mode of operation and intended end-use application. A Polynt representative will be available to assist in the proper selection of all Polynt-Reichhold products available for commercial use.

SHELF LIFE & STORAGE

The shelf life of POLYLITE® 31003-00 is 180 days from the date of manufacture from Polynt. To maximize usage life and maintain optimum properties, resins and gel coats should be stored in the original closed container at temperatures below 23°C/73°F and away from ignition sources and sunlight. Keep containers sealed to prevent moisture pick-up and monomer loss.

SAFETY & WARRANTY

To receive a copy of our safety and warranty information, please email safetyandwarranty@polynt.com.