PRODUCT BULLETIN

March 2018

POLYLITE® 31012-00

Low-Profile Base Resin

DESCRIPTION

POLYLITE® 31012-00 is a rigid, low viscosity, DCPD base resin designed for formulating a final product with low print through and low shrinkage properties compared to standard ortho polyesters. It can be blended with other base resins to help lower viscosity and NV levels while decreasing the percent (%) shrinkage of the final parts. This resin is non-thixotropic and unpromoted for use with various promoters and initiators to achieve a wide variety of gel and cure times for multiple applications.

BENEFITS & FEATURES

- Batch-to-batch consistency and uniformity from production utilizing Statistical Process Control (S.P.C) & Statistical Quality Control (S.Q.C) techniques
- Low viscosity and reduced air entrapment in blended resins due to low molecular weight
- Minimal print-through of reinforcement materials with improved cosmetics

PROPERTIES – LIQUID

Property(1)	Unit	31012-00
NVM	%	75
Viscosity (2)	cps	550
Gel Time(3)	minutes	14
Gel to Peak	minutes	10
Peak Exotherm	°C/°F	155/311
Specific Gravity	-	1.15
Flash Point (Seta Closed Cup)	°C/°F	31.6/89

1) All properties at 25°C/77°F unless otherwise noted
2) Brookfield Viscometer LFV Spindle #3 at 60 RPM
3) 0.25% 12% Cobalt + 1.5% MEKP 925

PROPERTIES – PHYSICAL

Property[1]	Unit	Neat Resin Casting[2]	Test Method
Tensile Strength	psi	7,000	ASTM D 638
Tensile Modulus	psi	520,000	ASTM D 638
Tensile Elongation	%	1.6	ASTM D 638
Flexure Strength	psi	12,000	ASTM D 790
Flexure Modulus	psi	672,000	ASTM D 790
Compression Strength	psi	20,000	ASTM D 695
Heat Deflection Temperature	°C/°F	77/171	ASTM D 648
Hardness, Barcol Model 934-1	HB	37	ASTM D 2583
Water Absorption - 2 hours at 212°F - 24 hours at 73°F	 % gain % gain	 0.84 0.18	ASTM D 570

1) Physical properties were determined using internal Polynt test methods that are similar to those listed above.
2) Initiator type and ratio: 1.0 g of Lupersol A-98 + 1.0 g of styrene per 100.0 g of resin; Cure conditions: 16 hrs. @ 130°F; Post-cure conditions: 2 hrs. @ 180°F, 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® 31012-00 resins 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.