PRODUCT BULLETIN

September 2018

# POLYLITE® 31051-00

## Low-Profile Base Resin

## DESCRIPTION

POLYLITE® 31051-00 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 resin to help lower viscosity and NV levels while decreasing the % 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. Suggested applications include use as a general purpose laminating resin or blending resin, and as a low styrene resin for filled or non-filled resins.

## 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 viscosities and reduced air entrapment in blended resins due to low molecular weight
- Minimal print-through of reinforcement materials from improved cosmetics

## PROPERTIES – LIQUID

| **Property**(1) | **Unit** | **31051-00** |
|---|---|---|
| Appearance | - | Amber Clear |
| Viscosity(2) | cps | 550 |
| SPI Gel Time (150-190 °F) | minutes | 8 |
| Gel to Peak | minutes | 4 |
| Peak Exotherm | °C/°F | 175/347 |
| Styrene Content | % | 25 |
| Flash Point (Seta Closed Cup) | °C/°F | 32/89 |

1) All properties at 25°C/77°F unless otherwise noted
2) Brookfield Viscometer LVF Spindle #3 at 60 RPM

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## PROPERTIES – PHYSICAL

| Property[1] | Unit | 1/8" Clear Casting[2] | Test Method |
|---|---|---|---|
| Tensile Strength | psi | 8,000 | ASTM D 638 |
| Tensile Modulus | psi | 580,000 | ASTM D 638 |
| Tensile Elongation | % | 1.6 | ASTM D 638 |
| Flexure Strength | psi | 13,000 | ASTM D 790 |
| Flexure Modulus | psi | 580,000 | ASTM D 790 |
| Heat Deflection Temperature | °C/°F | 65/149 | ASTM D 648 |
| Hardness, Barcol Model 934-1 | HB | 30 | ASTM D 2583 |
| Water Absorption<br>- 2 hours at 212°F<br>- 24 hours at 73°F | <br>% gain<br>% gain | <br>0.83<br>0.095 | 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, postcured 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® 31051-00 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.