PRODUCT BULLETIN

May 2018

POLYLITE® 32166 Series

Polyester Acrylic-Modified Solid Surface Resin

DESCRIPTION

POLYLITE® 32166 Series resins are casting resins developed to produce non-gel coated, solid surface products. Maximum HAP content on the products below are 35% making them MACT compliant.

Resins in the POLYLITE® 32166 Series are rigid, with medium reactivity and low viscosity. They are UV-stabilized and stain resistant containing methylmethacrylate (MMA) and are pre-promoted for room temperature cure using methyl ethyl ketone peroxide (United Initiators Norox MEKP 900 or equivalent). Often acetylacetone peroxide (United Initiators Norox Azox) is used in conjunction with MEKP. **The use of vacuum and post cure is strongly recommended in the manufacture of densified solid surface products.**

BENEFITS & FEATURES

- Acrylic-modified resin has the look, feel, and smell of cast acrylic
- Resin is based on Isophthalic acid and Neopentyl glycol which results in high resistance to water degradation, good stain resistance, high heat distortion temperature, superior thermal shock performance, and resistance to many organic and inorganic solutions and solvents
- Low viscosity allows high filler levels which reduces part cost
- Versions 32166-15 and -20 are MACT compliant and meet California Rule 50 and SCAQMD Rule 1162 with high solids content and low styrene.
- Specially promoted resulting in excellent filler suspension, short production cycles, controlled gel and cure drift, and light color

PROPERTIES – LIQUID

Property[1]	Unit	32166-15	32166-20	32166-30
Appearance	-	Blue-Gray/Clear; Slight Haze	Blue-Gray/Clear; Slight Haze	Blue-Gray/Clear; Slight Haze
NVM	%	66.5	66.5	63.5
Viscosity[2]	cps	1,050	1,050	750
Gel Time[3]	minutes	13.0	37.5	21.5
Total Time to Peak	minutes	22.5	26.0	30.0
Peak Exotherm	°C/°F	171/340	171/340	171/340
Specific Gravity	-	1.11	1.11	1.10
Flash Point (Seta Closed Cup)	°C/°F	32/89	32/89	32/89

1) All properties at 25°C/77°F unless otherwise noted
2) Brookfield Viscometer LVF Spindle #3 at 60 RPM
3) 1.00 cc Norox MEKP-900 per 100 g resin

PROPERTIES – PHYSICAL

Property[1]	Unit	1.8"/3.2mm Clear Casting[2]	Test Method
Tensile Strength	psi	11,000	ASTM D 638
Tensile Modulus	psi	540,000	ASTM D 638
Tensile Elongation	%	2.8	ASTM D 638
Flexure Strength	psi	21,000	ASTM D 790
Flexure Modulus	psi	604,000	ASTM D 790
Compression Strength	psi	18,000	ASTM D 695
Boiling Water Resistance	psi	380,000	ASTM D 695
Heat Deflection Temperature	°C/°F	65/149	ASTM D 648
Hardness, Barcol Model 934-1	HB	45	ASTM D 2583
Water Absorption - 2 hours at 212°F - 24 hours at 73°F	 % gain % gain	 0.12 0.71	ASTM D 570

1) Physical properties were determined using internal Polynt test methods that are similar to those listed above.
2) Clear castings were prepared by mixing Norox® FS-100-9 at 1.25 g per 100 g of resin allowing the resin to gel overnight (16 hours) at room temperature (73°F) then post-cured for 4 hours at 150°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® 32166 Series is 120 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.