PRODUCT BULLETIN

December 2018

POLYLITE® 32245 Series

Polyester Engineered Marble Resin

DESCRIPTION

The POLYLITE® 32245 Series resins are light amber colored, resilient, medium reactivity, low viscosity, resins formulated for casting processes. These unsaturated polyester "hybrid" resins are pre-promoted for room temperature cure using methyl ethyl ketone peroxide.

The POLYLITE® 32245 Series resins were formulated as matrix resins suitable for casting integral bowl vanities, wall panels, shower pans and bathtubs when using marble quality carbonate, trihydrate and lightweight type fillers. POLYLITE® 32245 Series resins can be used in conjunction with hand mix or automated dispensing equipment.

The POLYLITE® 32245 Series resins were formulated to provide a versatile low viscosity and low styrene/VOC alternative. The low viscosity allows higher filler loadings and would contribute to lower material cost of cast parts. Utilizing light weight fillers can reduce cast part material cost (at equivalent resin cost per pound) and weight.

Marble vanities made with the POLYLITE® 32245 Series resins were tested and exceeded the 500 cycles under ANSI* Thermal Shock Standards.

* American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018

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 allows for high filler loading to reduce part material cost, excellent wet-out and air release, recommended resin for light weight fillers, and minimal resin demand when used with light-weight fillers
- Certification for high quality finished parts; passed all tests in accordance with ANSI Z124.3 for engineered marble
- Meets California Rules 50 and 1162 with less than 35% styrene content
- Specially promoted which results in low part exotherm, low shrink, and improved shelf stability

PROPERTIES – LIQUID

Property(1)	Unit	32245-16	32245-25
Appearance	-	Clear Amber-Brown	Clear Amber-Pink
NVM	%	68	70
Viscosity(2)	cps/mPa·s	168	255
Gel Time(3)	minutes	16.5	16.5
Total Time to Peak	minutes	28	28
Peak Exotherm	°C/°F	155/311	155/311
Specific Gravity	-	1.10	1.10

1) All properties at 25°C/77°F unless otherwise noted
2) Brookfield Viscometer LVF Spindle #1 at 30 RPM
3) 1.00 cc Norox® MEKP-900 per 100 g resin

PROPERTIES – PHYSICAL

Property[1]	Unit	Clear Casting[2]	Test Method
Tensile Strength	psi	6,300	ASTM D 638
Tensile Modulus	psi	484,000	ASTM D 638
Tensile Elongation	%	1.5	ASTM D 638
Flexure Strength	psi	13,000	ASTM D 790
Flexure Modulus	psi	584,000	ASTM D 790
Compression Strength	psi	18,000	ASTM D 695
Compression Modulus	psi	398,000	ASTM D 695
Heat Deflection Temperature	°C/°F	71/160	ASTM D 648
Hardness, Barcol Model 934-1	HB	33	ASTM D 2583
Water Absorption - 24 hours at 73°F	% gain	0.1732	ASTM D 570
Notched Izod Impact -Type "A"	ft-lb/in	1.819	ASTM D 256
Notched Izod Impact -Type "E"	ft-lb/in	3.318	ASTM D 256

1) Physical properties were determined using internal Polynt test methods that are similar to those listed above.
2) 1.25 cc Norox® MEKP-900 per 100 g resin. Cured overnight at room temperature, and post-cured for 2 hours at 150°F, then 2 hours at 250°F. Properties noted in this bulletin are based on initiating the resin with Norox® MEKP-900, methyl ethyl ketone peroxide. Use of another initiator may result in different values.

PROPERTIES - OTHER

Typical Use guidelines

POLYLITE® 32245 marble resins are formulated for use with fillers commonly used in the manufacture of engineered marble. Physical properties of filled compositions are influenced by many factors under the manufacturer's control, such as filler type/particle size distribution/concentration, ambient temperature, pigments, initiator type/level, cross sectional area of the finished part and part configuration. Filler interaction with the resin affects the final color of the product and can influence the gel and cure rate. Careful evaluation of these factors must be considered before use.

Initiator levels should be maintained within a range of 1.25%-2.50% by weight based on resin weight. Initiator levels below 1.00% MEKP will result in extended gel and cure rates and are never recommended. If longer cycle times are required select the longer gel time version, POLYLITE® 32245-16.

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® 32245 Series resins 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.