PRODUCT BULLETIN

October 2018

POLYLITE® 32144 Series

Polyester Engineered Cultured Marble Resins

DESCRIPTION

POLYLITE® 32144 Series resins are semi-resilient, orthophthalic, low reactivity, medium viscosity, casting resins. These unsaturated polyester resins are pre-promoted for curing at room temperature with a methyl ethyl ketone peroxide initiator.

These resins are versatile enough to make large or small castings, vanities, and tubs. When properly mixed, initiated, and gel coated, vanities made with POLYLITE® 32144 resins will exceed ICPA* and ANSI** thermal shock standards.

POLYLITE® 32144 Series resins are designed for use with calcium carbonate, silicates, quartz sand, and other fillers commonly used in the manufacture of engineered marble. Interaction between the resin and filler can affect final color and can also influence the gel and cure rates. Suggested uses include engineered marble and simulated granite. POLYLITE® 32144-02 is also recommended for casting recycled glass or metal.

POLYLITE® 32144-47 is amber colored, resilient, medium reactivity, low viscosity, casting resin. This unsaturated polyester resin is pre-promoted for room temperature cure using methyl ethyl ketone peroxide. Marble vanities made with POLYLITE® 32144-47 polyester resin will SUBSTANTIALLY exceed ICPA* and ANSI† thermal shock standards when properly mixed, catalyzed, and cured. Suggested applications include cultured marble and polymer concrete. **POLYLITE® 32144-47 is not recommended for bathtubs.**

** International Cast Polymers Alliance of ACMA, Arlington, VA*
***American National Standards Institute, New York, NY*

BENEFITS & FEATURES

- Batch-to-batch consistency and uniformity from production utilizing Statistical Process Control (S.P.C) & Statistical Quality Control (S.Q.C) techniques
- Specially promoted to control gel and cure drift, minimize warping, and to provide excellent resistance to impact, thermal, and demolding cracks
- Controlled shrinkage allows production of large parts without cracks due to low exotherm
- Meets California Rule 50 and SCAQMD Rule 1162 due to low styrene and high solids
- Low styrene emissions, minimum warpage, crack resistant (even in warm weather), and excellent filler suspension due to high solids content
- High filler loading, high filler suspension, and superior air release due to medium viscosity
- Unique polymer provides outstanding thermal shock resistance, excellent impact and flexural strength

PROPERTIES – LIQUID

Property[1]	Unit	32144-02
Liquid Color	visual	Clear Light Blue
Cured Color	visual	Clear Peach
NVM	%	69.5
Viscosity	cps	1,300[2]
Gel Time	minutes	10[3]
Gel to Peak	minutes	12
Total Time to Peak	minutes	22
Peak Exotherm	°C/°F	135/275
Specific Gravity	g/cm^3	1.11
Weight	lbs/gal	9.5
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
3) 1.0 cc Norox® MEKP-900 per 100 g resin

PROPERTIES – PHYSICAL

Property[1][2]	Unit	32144-02[3]	Test Method
Tensile Strength	psi	6,000	ASTM D 638
Tensile Modulus	psi	626,000	ASTM D 638
Tensile Elongation	%	1.2	ASTM D 638
Flexure Strength	psi	18,000	ASTM D 790
Flexure Modulus	psi	538,000	ASTM D 790
Compression Strength	psi	-	ASTM D 695
Heat Deflection Temperature	°C/°F	47/117	ASTM D 648
Hardness, Barcol Model 934-1	HB	40	ASTM D 2583
Water Absorption - 2 hours at 212°F - 24 hours at 73°F	 % gain % gain	 0.15 1.2	ASTM D 570
Impact Strength	-	Passes	ASTM D 256
Thermal Shock Resistance	-	500 cycles	ANSI Z-124.6

1) Physical properties were determined using internal Polynt test methods that are similar to those listed above.
2) The use of initiator levels below 0.6% will result in extended gel and cure times and should not be used.
3) 1.25 g Norox® MEKP-900 per 100 g resin. Castings cured overnight at room temperature; post-cure for two hours at 121 °C (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® 32144 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.