PRODUCT BULLETIN

February 2021

POLYLITE® 32489-10

Polyester Casting Resin

DESCRIPTION

POLYLITE® 32489-10 is a rigid polyester resin formulated for use in polymer concrete including the casting of composite columns. It provides excellent mechanical strength and superior hydrolytic resistance in finished parts when compared to standard wood products.

POLYLITE® 32489-10 is a low-viscosity, hybrid polyester. A wide range of gel times are possible through choice and initiator (catalyst). It is designed to allow maximum loading of various sized silicates, carbonates, sulfates, hydrates, aggregates and light weight fillers. It is formulated for use with BPO initiator and with methyl ethyl ketone peroxides (MEKP) such as Norox® MEKP-9, MEKP-9H or MEKP-925 with the addition of cobalt to yield fast gel and cure rates.

For EPA classifications purposes this resin is not considered corrosion resistant and/or high strength.

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 highest possible filler loading which reduces cost
- Specially promoted for fast production cycles and controlled gel/cure drift
- Excellent "green strength" provides rapid demold time resulting in fast mold turnover

PROPERTIES – LIQUID

Property(1)	Unit	32489-10
Appearance	-	Green/Yellow
NVM	%	71
Viscosity(2)	cps	190
Gel Time(3)	minutes	9
Gel to Peak	minutes	5.5
Peak Exotherm	°C/°F	150/302
Weight per Gallon	lbs/gallon	9.25
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
3) Promotion: 0.3 g 12% cobalt; Initiation: 2.0 g Norox® MEKP-925

PROPERTIES – PHYSICAL

Property[1]	Unit	Neat Resin Casting[2]	Test Method
Tensile Strength	psi	6,000	ASTM D 638
Tensile Modulus	psi	448,000	ASTM D 638
Tensile Elongation	%	1.6	ASTM D 638
Flexure Strength	psi	12,000	ASTM D 790
Flexure Modulus	psi	373,000	ASTM D 790
Hardness, Barcol Model 934-1	HB	45	ASTM D 2583

1) Physical properties were determined using internal Polynt test methods that are similar to those listed above.
2) Cure Conditions: Clear castings promoted with 0.3% g 12% cobalt, then initiated with 1.25 g Norox MEKP-925 methyl ethyl ketone peroxide; Overnight cure @ room temperature; Post-cured 2 hrs. @ 150 °C, then 2 hrs. @ 250 °F

APPLICATION

Refer to Polynt's Composites Applications Guide ("Cookbook") for equipment and application recommendations. 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® 32489-10 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.