PRODUCT BULLETIN

August 2020

ENVIROLITE® 31401-12

Unsaturated Polyester Resin

DESCRIPTION

ENVIROLITE® 31401-12 is a pre-promoted, medium to high reactivity, low viscosity, unsaturated polyester based resin formulated for fabrication of reinforced composites using light resin transfer molding methods. ENVIROLITE® 31401-12 is promoted for room temperature gel and cure with the addition of methyl ethyl ketone peroxide initiators.

BENEFITS & FEATURES

- Batch-to-batch consistency and uniformity from production utilizing Statistical Process Control (S.P.C) & Statistical Quality Control (S.Q.C) techniques
- Excellent fiberglass wet-out due to low viscosity
- Accepts high filler/glass loadings due to good handling characteristics
- Terephthalic based with excellent mechanical properties
- 21.5% recycled content

PROPERTIES – LIQUID

Property(1)	Unit	31401-12
Appearance	-	Hazy
NVM-SPI	%	56
Acid Number	-	29
Viscosity(2)	cps	102.5
Gel Time(3)	minutes	12.5
Gel to Peak	minutes	10.5
Peak Exotherm	°C/°F	155/311
Specific Gravity	g/cm^3	1.10

1) All properties at 25°C/77°F unless otherwise noted
2) Brookfield Viscometer LV Spindle #2 at 60 RPM
3) 1.25 g MEKP-9 per 100 g resin

PROPERTIES – PHYSICAL

Property(1)	Unit	Neat Resin Casting(2)	Test Method
Tensile Strength	psi	9,000	ASTM D 638
Tensile Modulus	psi	479,000	ASTM D 638
Tensile Elongation	%	2.18	ASTM D 638
Flexure Strength	psi	16,000	ASTM D 790
Flexure Modulus	psi	575,000	ASTM D 790
Compression Strength	psi	13,000	ASTM D 695
Heat Deflection Temperature	°C/°F	64/147	ASTM D 648
Hardness, Barcol Model 934-1	HB	39	ASTM D 2583

1) Physical properties were determined using internal Polynt test methods that are similar to those listed above.
2) 1.25% Syrgis® Norox® MEKP-9; Overnight gel 16 hrs. @ 73 °F; Post-cure 2 hrs. @ 150 °F, 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 ENVIROLITE® 31401-12 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.