PRODUCT BULLETIN

March 2020

STYPOL® 040-4041

Low Styrene, Pre-promoted, Thixotropic Laminating Resin

DESCRIPTION

STYPOL® 040-4041 is a pre-promoted, thixotropic laminating resin. This product is a low styrene, low profile, unsaturated polyester resin. It provides a highly rigid resin, which results in smoother part surfaces and less fiber print-through and distortion.

STYPOL® 040-4041 is designed for general hand lay-up or spray-up applications. This product complies with the EPA National Emission Standards for Hazardous Air Pollutants (NESHAP) MACT requirements for both Marine Manufacturing and Reinforced Composites Production.

BENEFITS & FEATURES

- Low HAP content
- Low odor and low emissions
- Superior glass wet-out
- Low exotherm
- Low shrinkage
- Resistance to fiberglass pattern print-through
- Fast Barcol development
- Easy rollout and excellent laminate mechanical properties

PROPERTIES – LIQUID

Property(1)	Unit	040-4041
Viscosity(2)	cps	500
Thix Index	-	2.9
Gel Time(3)	minutes	23
Gel to Peak	minutes	8.0
Peak Exotherm	°C/°F	174/345
Weight per Gallon	lbs/gal	9.1

1) All properties at 25°C/77°F unless otherwise noted
2) Brookfield LVF Spindle #3 at 60 rpm
3) 100 g mass, 1.50% Arkema Luperox® DDM-9

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PROPERTIES – PHYSICAL

Property[1]	Unit	Neat Resin Casting[2]	Laminate[4][5]	Test Method
Tensile Strength	psi	7,000	16,000	ASTM D 638
Tensile Modulus	psi	540,000	1,190,000	ASTM D 638
Tensile Elongation	%	1.38	2.1	ASTM D 638
Flexure Strength	psi	13,000	27,000	ASTM D 796
Flexure Modulus	psi	530,000	1,000,000	ASTM D 796
Hardness, Barcol Model #934	HB	42	45	ASTM D 2583
Heat Distortion, 264 psi	°C/°F	83/181[3]	N/A	ASTM D 648

1) Physical properties were determined using internal Polynt test methods that are similar to those listed above.
2) Post-cure at room temperature overnight, followed by 4 hours at 150°F
3) Post-cure at room temperature overnight, followed by 5 hours at 212°F
4) Laminate – two plies of 1.5 ounce mat, 35% glass content
5) Post-cure at room temperature overnight, followed by 4 hours at 150°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 STYPOL® 040-4041 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.