PRODUCT BULLETIN

March 2018

HYDREX® LS 33390 Series

MACT Compliant, High Performance Marine Laminating Resin

DESCRIPTION

HYDREX® LS 33390 Series are promoted, high performance, low styrene, thixotropic, MACT Compliant hybrid vinyl ester marine laminating resins. HYDREX® LS 33390 Series are formulated for ambient curing with methyl ethyl ketone peroxides (MEKP) in high performance marine or general purpose hand lay-up or spray-up applications where excellent durability and blister resistance are desired.

Benefits & Features

- Batch-to-batch consistency and uniformity from production utilizing Statistical Process Control (S.P.C) & Statistical Quality Control (S.Q.C) techniques
- Complies with Rule 1162 and Regulation 8: Rule 50 for Polyester Resin Operations, and MACT Compliant with less than 35% Styrene (by weight)
- Low water absorption and superior resistance to hull blistering below the water line due to excellent hydrolytic stability.
- Resists impact, thermal, and demolding cracking from high strength and toughness
- Minimal print-through of reinforcement materials and improved cosmetics due to low post cure tendencies and low profile
- Maintains mechanical properties at high temperatures due to high HDT
- Suitable for hand lay-up or spray-up applications

PROPERTIES – LIQUID

Property[1]	Unit	33390-00	33390-02	33390-03	33390-15	33390-16	33390-30
Appearance	-	Blue	Blue	Blue	Amber	Amber	Blue
Viscosity[2]	cps	575	550	550	525	525	550
Thix Index	-	3.0	3.4	3.4	3.3	3.3	3.0
Gel Time	minutes	28[3]	28[4]	28[5]	25.0[6]	30.0[6]	28[7]
Gel to Peak	minutes	16	20	15	22	27	14
Peak Exotherm	°C/°F	149/300	153/307	153/307	149/300	149/300	149/300
Specific Gravity	-	1.07	1.07	1.07	1.07	1.07	1.07
Flash Point (Seta Closed Cup)	°C/°F	32/89	32/89	32/89	32/89	32/89	32/89

1) All properties at 25°C/77°F unless otherwise noted
2) Brookfield Viscometer LV Spindle #3 at 60 RPM
3) 1.25 cc DDM-9 per 100.0 g resin
4) 1.5 g MEKP-9 per 100.0 g resin in air with Tecam timer
5) 1.5 g Norox 757 per 100.0 g resin in air with Tecam timer
6) 1.5 g MEKP-9 per 100.0 g resin
7) 1.25 g DDM-9 per 100.0 g resin in air with Tecam timer

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PROPERTIES – PHYSICAL

Property[1]	Unit	Neat Resin Casting	Test Method
Tensile Strength	psi	10,000	ASTM D 638
Tensile Modulus	psi	500,000	ASTM D 638
Tensile Elongation	%	2.3	ASTM D 638
Flexure Strength	psi	18,000	ASTM D 790
Flexure Modulus	psi	590,000	ASTM D 790
Compression Strength	psi	20,000	ASTM D 695
Heat Deflection Temperature	°C/°F	108/226	ASTM D 648
Hardness, Barcol Model 934-1	HB	36	ASTM D 2583
Water Absorption - 2 hours at 212°F - 24 hours at 73°F	 % gain % gain	 0.54 0.18	ASTM D 570

1) Physical properties were determined using internal Polynt test methods that are similar to those listed above.
2) Initiator type and ratio: 1.55 cc Norox 757 per 100.0 g resin; Cure conditions: 16 hrs. @73 °F; Post-cure conditions: 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 HYDREX® 100 LS 33390 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.