PRODUCT BULLETIN

May 2025

POLYLITE® TLP 33234 Series

Low Profile, Low Styrene Marine Laminating Resins

DESCRIPTION

POLYLITE® TLP 33234 Series resins are promoted, thixotropic, low profile, low styrene, marine grade, unsaturated polyester laminating resins. POLYLITE® TLP 33234 Series resins are formulated for ambient curing with methyl ethyl ketone peroxide (MEKP) initiators for marine or general purpose hand lay-up or spray-up applications where compliance with SCAQMD Rule 1162 type emission standards 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 with less than 35% monomer (by weight)
- Quick turnover of parts and ease of handling due to rapid wetting of reinforcements and low air entrapment
- Minimal print-through of reinforcement materials and improved cosmetics due to low post-cure tendencies
- Fast Barcol development in thin cross-section laminates due to rapid rate of cure
- Resists impact, thermal, and demolding cracking
- Versatile and suitable for hand lay-up or spray-up applications
- Maintains mechanical properties at high temperatures due to high HDT
- Good secondary bonding performance because there are no wax additives

PROPERTIES – LIQUID

Property[1]	Unit	33234-14	33234-24	33234-26	33234-37	33234-A37
Appearance	-	Amber	Pink	Amber	Blue	Amber
Viscosity	cps	475[2]	450[2]	475[2]	500[3]	500[3]
Thix Index	-	3.05	3.05	2.8	3.25	3.25
Gel Time	minutes	13.5[4]	21.5[4]	21.5[5]	34.0[6]	34.0[6]
Gel to Peak	minutes	10.0	14.0	11.0	15.0	15.0
Peak Exotherm	°C/°F	175/347	156/312	167/333	163/325	163/325
Specific Gravity	g/cm^3	1.10	1.10	1.10	1.10	1.10
Flash Point (Seta Closed Cup)	°C/°F	32/89	32/89	32/89	32/89	32/89

1) All properties at 25°C/77°F unless otherwise noted
2) Brookfield Viscometer RVF Spindle #2 @ 50 RPM
3) Brookfield Viscometer LVF Spindle #3 @ 60 RPM
4) 1.0 cc of United Initiators Norox® MEKP-925 per 100.0 g of resin
5) 1.5 cc of United Initiators Norox® MEKP-925 per 100.0 g of resin
6) 1.5 g of United Initiators Norox® MEKP-925 per 100.0 g of resin

PROPERTIES – LIQUID (Continued)

Property[1]	Unit	33234-38	33234-46	33234-A49	33234-66
Appearance	-	Blue	Blue	Pink	Pink
Viscosity	cps	500[2]	550[2]	600[2]	450[3]
Thix Index	-	3.25	3.5	3.63	3.05
Gel Time	minutes	40.0[4]	46.0[5]	50[6]	22.0[7]
Gel to Peak	minutes	15.0	16.0	13.5	14.0
Peak Exotherm	°C/°F	150/302	145/293	140/284	156/312
Specific Gravity	g/cm^3	1.10	1.10	1.10	1.10
Flash Point (Seta Closed Cup)	°C/°F	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 @ 60 RPM
3) Brookfield Viscometer RV Spindle #2 @ 50 RPM
4) 1.5 g United Initiators Norox® MEKP-925 per 100.0 g of resin
5) 1.5 g United Initiators Norox® MEKP-9 per 100.0 g of resin
6) 2.0 cc United Initiators Norox® MEKP-9 per 100.0 g of resin
7) 1.0 cc United Initiators Norox® MEKP-925 per 100.0 g of resin

PROPERTIES – PHYSICAL

Property[1]	Unit	Neat Resin Casting[2]	Test Method
Tensile Strength	psi	7,000	ASTM D 638
Tensile Modulus	psi	470,000	ASTM D 638
Tensile Elongation	%	1.7	ASTM D 638
Flexure Strength	psi	15,000	ASTM D 790
Flexure Modulus	psi	530,000	ASTM D 790
Compression Strength	psi	17,000	ASTM D 695
Heat Deflection Temperature	°C/°F	80/176	ASTM D 648
Hardness, Barcol Model 934-1	HB	38	ASTM D 2583
Water Absorption - 2 hours at 212°F - 24 hours at 73°F	 % gain % gain	 0.83 0.17	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: Arkema Luperox® DDM-9 @ 1.5%; Cure conditions: 16 hrs. @ 73°F; Post-cure conditions: 2 hrs. @ 150°F, 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 products available for commercial use.

SHELF LIFE & STORAGE

The shelf life of POLYLITE® TLP 33234 Series 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.