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REICHHOLD

PRODUCT BULLETIN

POLYLITE® 33087-00

POLYESTER LAMINATING RESIN

DESCRIPTION

Polylite 33087-00 is a pre-promoted, thixotropic, unsaturated polyester resin. This is a low viscosity, general purpose, orthophthalic laminating resin that may be used in fabrication of general FRP articles using either hand lay-up or spray-up procedures. Polylite 33087-00 is formulated for curing with methyl ethyl ketone peroxide initiator.

FEATURES	*BENEFITS*
• Versatile	• Suitable for hand lay-up as well as spray-up applications
• Thixotropic	• Resists sagging or draining on vertical surfaces • Resists drainage from reinforcements
• SPC/SQC Controlled	• Batch-to-batch uniformity

SIMILAR RESINS

• Polylite 33087-05	• Higher viscosity (typically 550 cps) • Unpromoted

TYPICAL[1] LIQUID PROPERTIES @ 25°C

	TEST METHOD	
Flash Point, Seta Closed Cup, °C (°F)		31.6 (89)
Shelf Life, minimum, months*		3
Specific Gravity		1.10
Weight/Gallon, lbs	18-030	9.1
Styrene Monomer, %	18-001	44.5
Viscosity, Brookfield LVF #3 Spindle @ 60 RPM, cps	18-021	450
Thixotropic Index (minimum)	18-021	2.8
Gel Time†, SPI 150-190°F, minutes	18-050	20
Time 190°F to Peak Exotherm, minutes	18-050	34
Peak Temperature, °C (°F)	18-050	149 (300)
Color, Liquid	18-043	Dark amber, opaque

* See following section on storage procedures.
†With 1.25cc Superox® 46709 per 100g resin.

[1]Properties listed in this bulletin are typical of those obtained in controlled laboratory tests and are provided as guidelines.

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APPLICATION

The Polylite 33087-00 series is pre-promoted, so the addition of Superox 46709 methyl ethyl ketone peroxide (MEKP) will bring about room temperature gel and cure. As with all polyesters, time and degree of cure is a function of catalyst concentration and of temperature. Therefore, resin temperatures and work area should be maintained between 24 and 35°C (75-95°F) to ensure satisfactory results.

Superox 46709 initiator levels should be maintained within a range of 0.75 - 2.5% based on weight of resin. The use of initiator levels outside of this range may result in inadequate cure with laminates exhibiting moderate to severe post-cure after demold. If alternative gel times are required, contact your Reichhold representative to determine products available for special requirements.

The Polylite 33087-00 resin series requires precautions to ensure proper secondary bond performance. Secondary bonding will be adversely affected in resin-rich areas or in laminates that have been exposed to heat or direct sunlight for an extended period of time. Should such conditions occur, or if greater than 48 hours has lapsed, thorough sanding and cleaning of the substrate is recommended prior to secondary laminate application.

Other conditions known to adversely affect secondary bond performances are contamination of the primary laminate (e.g., grinding dust, oil, moisture, waxes, release agents, etc.) and type of glass reinforcement used. All contaminants should be removed from the laminate surface prior to secondary bond application.

Each user must determine the suitability of this product in their particular mode of operation.

QUALITY POLICY

Reichhold is committed to quality. We will satisfy the needs of the marketplace with innovative products that maximize value and performance, delivered in specification and on time.

STORAGE AND HANDLING

To ensure maximum stability and maintain optimum resin properties, Polylite resins should be stored in closed containers at temperatures below 75°F (25°C), away from heat sources and sunlight. Drum stock should be stored away from all sources of flame or combustion. All storage areas and containers should conform to local fire and building codes. Inventory levels should be kept to a reasonable minimum, with first-in/first-out stock rotation.

AS WITH ANY THIXOTROPIC RESIN, STRATIFICATION OF THE THIXOTROPE MAY OCCUR IN STORAGE. THEREFORE, THE RESIN SHOULD BE AGITATED PRIOR TO USE.

WARNING: MIXING OF ANY ORGANIC PEROXIDE WITH METAL SOAPS, AMINES, OR ANY OTHER POLYMERIZATION ACCELERATOR OR PROMOTER WILL RESULT IN VIOLENT DECOMPOSITION.

Additional information on handling and storing unsaturated polyesters is available in Reichhold's Application Bulletin, "Bulk Storage and Handling of Unsaturated Polyester Resins." For product information on other Reichhold resins or Superox peroxide initiators, please contact your sales representative or your nearest Reichhold distributor.