

POLYLITE® 516-880
Low VOC Hybrid laminating resin

DESCRIPTION

POLYLITE® 516-880 is a medium reactive low styrene DCPD hybrid laminating resin with low VOC content.

The resin is thixotropic and pre-accelerated.

APPLICATION

- POLYLITE® 516-880 is suitable for all general purpose composite applications. The resin has a built-in accelerator system giving medium long gel time and good reactivity in medium thick laminates (5-12mm) applied wet in wet, without creating too high laminate peak exotherm. For thinner laminates (2-5 mm) a good reactivity is achieved by increasing the NORPOL PEROXIDE 1 amount to 1.5-2.0% dependant of laminate thickness.
- When a laminate is built up in stages with intermediate curing, each operation should be finished off with a normal resin/glass fiber ratio. Any surface area of a cured laminate having an excess of resin, must be abraded before the laminating is continued.
- With a normal resin/glass fiber ratio of the laminate surface the intervals between each operation must not exceed 48 hours without abrasion due to good surface curing.

FEATURES

BENEFITS

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| <ul style="list-style-type: none"> • Low styrene content, <35% • Good fiber wetting properties • Tailor made built-in accelerator system • Approvals | <ul style="list-style-type: none"> • Reduced shrinkage • Improved surface aspects • Reduced styrene emission • Easy lamination and air release • Good reactivity in laminate thickness 2-12 mm wet in wet • Det norske Veritas, DNV, Grade 2 • Lloyd's Register of Shipping • Germanischer Lloyd |
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The information herein is general information designed to assist customers in determining whether our products are suitable for their applications. Our products are intended for sale to industrial and commercial customers. We require customers to inspect and test our products before use and to satisfy themselves as to contents and suitability for their specific applications. We warrant that our products will meet our written specifications. **Nothing herein shall constitute any other warranty express or implied, including any warranty of merchantability or fitness for a particular purpose**, nor is any protection from any law or patent to be inferred. All patent rights are reserved. The exclusive remedy for all proven claims is limited to replacement of our materials and in no event shall we be liable for special, incidental or consequential damages.

TYPICAL PROPERTIES

PHYSICAL DATA IN LIQUID STATE AT 23°C

Properties	Unit	Value	Test method
Viscosity - Brookfield Model LVF, Spindle 2 at 12 rpm - Cone & Plate	mPa·s(cP) mPa·s(cP)	1100-1300 220-270	ASTM D 2196-86 ISO 2884-1999
Specific gravity / Density	g/cm ³	1,10 ± 0.02	ISO 2811-2001
Styrene content	% weight	33 ± 2	B070
Flash point	°C	32	ASTM D 3278-95
Gel time: 1% NORPOL PEROXIDE 1 (MEKP)	minutes	45-55	G020
Storage stability from date of manufacture	months	4	G180

TYPICAL NON-REINFORCED CASTING PROPERTIES

Fully post cured (24 hrs at RT+ 24 hrs at 60°C+ 3 hrs at 90°C)

Properties	Unit	Value	Test method
Tensile strength	MPa	50	ISO 527-1993
Tensile modulus	MPa	3100	ISO 527-1993
Tensile elongation	%	2,1	ISO 527-1993
Flexural strength	MPa	90	ISO 178-2001
Flexural modulus	MPa	3300	ISO 178-2001
Heat distortion temp.	°C	75	ISO 75-1993

STORAGE

To ensure maximum stability and maintain optimum resin properties, resins should be stored in closed containers at temperatures below 24°C/75°F and away from heat ignition sources and sunlight. Resin should be warmed to at least 18°C/65°F prior to use in order to assure proper curing and handling. All storage areas and containers should conform to local fire and building codes. Copper or copper containing alloys should be avoided as containers. Store separate from oxidizing materials, peroxides and metal salts. Keep containers closed when not in use. Inventory levels should be kept to a reasonable minimum with first-in, first-out stock rotation.

Additional information on handling and storing unsaturated polyesters is available in Reichhold's application bulletin "Bulk Storage and Handling of Unsaturated Polyester Resins." For information on other Reichhold resins or initiators, contact your sales representative or authorized Reichhold distributor.

SAFETY

READ AND UNDERSTAND THE MATERIAL SAFETY DATA SHEET BEFORE WORKING WITH THIS PRODUCT

Obtain a copy of the material safety data sheet on this product prior to use. Material safety data sheets are available from your Reichhold sales representative. Such information should be requested from suppliers of all products and understood prior to working with their materials.

DIRECTLY MIXING ANY ORGANIC PEROXIDE WITH A METAL SOAP, AMINE, OR OTHER POLYMERIZATION ACCELERATOR OR PROMOTER WILL RESULT IN VIOLENT DECOMPOSITION