

POLYLITE® 440-M888
Standard Orthophthalic Polyester Resin

DESCRIPTION

POLYLITE® 440-M888 is a medium reactive orthophthalic polyester resin.

POLYLITE® 440-M888 contains special additives which improve the working environment during and after application due to substantially reduced styrene evaporation. The resin contains wax which gives the cured laminate a tack-free surface.

POLYLITE® 440-M888 is thixotropic and has a built-in accelerator system giving relatively short gel time and rapid curing combined with a very short demoulding time.

APPLICATION

- POLYLITE® 440-M888 is a hand/spray-up resin.
- POLYLITE® 440-M888 is designed for marine, industrial and transport application.

FEATURES

- Excellent application properties
- Excellent curing characteristics
- Approvals

BENEFITS

- Short application time
Good fiber wetting
- Improved state of cure when demoulding, giving improved surface aspects. Short cycle times (in < 6 mm wet laminates with 1-2% standard MEK Peroxides)
Cured with NORPOL PEROXIDE 19, the wet-in-wet thickness span can be increased to 12 mm with glass content of 35% or more. The system gives improved state of cure when demoulding.
- Det norske Veritas (DNV), Grade 2
Lloyd's Register of Shipping
Germanischer Lloyd
Bureau Veritas
Russian Maritime Register of Shipping

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	mPa·s(cP)	1100-1300	ASTM D 2196-86
- Cone & Plate	mPa·s(cP)	170-200	ISO 2884-1999
Specific gravity / Density	g/cm ³	1,10	ISO 2811-2001
Acid number (max.)	mgKOH/g	24	ISO 2114-1996
Styrene content	% weight	43 ± 2	B070
Gel time: 1% NORPOL PEROXIDE 1 (MEKP)	minutes	35-45	G020
2% NORPOL PEROXIDE 1 (MEKP)	minutes	15-25	G020
1% NORPOL PEROXIDE 19	minutes	40-50	G020
2% NORPOL PEROXIDE 19	minutes	20-30	G020
Storage stability from date of manufacture	months	6	G180

NB! Acetylacetone-peroxide should not be used as a peroxide in POLYLITE® 440-M888

TYPICAL NON-REINFORCED CASTING PROPERTIES

Fully postcured.

Properties	Unit	Value	Test method
Tensile strength	MPa	50	ISO 527-1993
Tensile modulus	MPa	4600	ISO 527-1993
Tensile elongation	%	1.6	ISO 527-1993
Flexural strength	MPa	90	ISO 178-2001
Flexural modulus	MPa	4000	ISO 178-2001
Impact strength P4J	mJ/mm ²	5.0-6.0	ISO 179-2001
Volume shrinkage	%	5.5-6.5	ISO 3521-1976
Heat distortion temp.	°C	62	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