

**POLYLITE® 720-M850**  
Isophthalic Polyester Resin

**DESCRIPTION**

POLYLITE® 720-M850 is a medium reactive isophthalic polyester resin with generally good mechanical properties, impact strength in particular.

POLYLITE® 720-M850 is thixotropic and accelerated.

POLYLITE® 720-M850 gives relatively low peak exotherm, and suited for laminates applied wet-on-wet from 3-8 mm depending on the type of reinforcement.

**APPLICATION**

POLYLITE® 720-M850 is specially designed to resist water, oil, and less aggressive chemicals, and modifications of this are specially suitable for production of tanks, pipes etc, as well as marine applications and other water and sewage applications.

POLYLITE® 720-M850 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® 720-M850 is designed for hand lay-up and spray-up applications.

**FEATURES**

- Good Water and Chemical Resistance
- Styrene Emission
- Approvals

**BENEFITS**

- Modifications of this are approved for use in petrol- and oil-storage tanks, as well as marine applications
- LSE grade giving reduced styrene emission during handling and curing
- Lloyds Register of Shipping
- Det norske Veritas (DNV), Grade 1

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 LVF sp. 2/12 rpm	mPa·s(cP)	900-1100	ASTM D 2196-86
- Cone & Plate	mPa·s(cP)	280-330	ISO 2884-1999
Density	g/cm <sup>3</sup>	1.10	ISO 2811-2001
Acid number (max.)	mgKOH/g	15	ISO 2114-1996
Styrene content	% weight	46 ± 2	B070
Flash point	°C	32	ASTM D 3278-95
Gel time: 1% NORPOL PEROXIDE 1	minutes	35-45	G020
Storage stability from date of manufacture	months	6	G180

In order to obtain a rapid and reliable curing, NORPOL PEROXIDE 1 or a corresponding MEK-peroxide is recommended for POLYLITE® 720-M850.

**TYPICAL NON-REINFORCED CASTING PROPERTIES**

Fully post-cured.

Properties	Unit	Value	Test method
Density	g/cm <sup>3</sup>	1.19	ISO 1183-87
Tensile strength	MPa	76	ISO 527-1993
Tensile modulus	MPa	3650	ISO 527-1993
Tensile elongation	%	3.5	ISO 527-1993
Flexural strength	MPa	140	ISO 178-1993
Flexural modulus	MPa	3550	ISO 178-1993
Impact strength, P 4 J	mJ/mm <sup>2</sup>	10	ISO 179-1993
Volume shrinkage	%	7.5	ISO 3521-1976
Heat distortion temp.	°C	78	ISO 75-1993
Hardness Barcol	934-1	40	ASTM D 2583-99
Water absorption			
- After 24 hours	%	0.15	ISO 62-1980
- After 28 days	%	0.76	ISO 62-1980

**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**