

POLYLITE® 721-800 E

Isophthalic Polyester Resin

DESCRIPTION

POLYLITE® 721-800 E is a medium reactive isophthalic polyester resin with generally good mechanical properties, impact strength in particular. The resin is specially formulated to resist water, oil, and less aggressive chemicals and modifications of this are especially suitable for production of tanks, pipes etc

POLYLITE® 721-800 E is thixotropic, accelerated and has a viscosity that ensures thorough glass fiber impregnation. Built-in accelerator system gives relatively long gel time, rapid curing combined with relatively low exothermic temperature and short demoulding time.

POLYLITE® 721-800 E is extra stabilized for prolonged shelf life at elevated temperature and geltime adjusted for comfortable process time even at higher ambient temperature,

APPLICATION

POLYLITE® 721-800 E is specially designed to resist water, oil, and less aggressive chemicals and modifications of this are especially suitable for production of tanks, pipes etc, as well as marine applications and other water and sewage application.

POLYLITE® 721-800 E is designed for hand lay-up and spray-up application is low exothermic and is suited for laminates applied wet-on-wet from 3-8 mm, depending on type of reinforcement.

FEATURES

BENIFITS

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| <ul style="list-style-type: none"> • Good Water and Chemical Resistance • High heat distortion temperature • Excellent application properties • Moderate Viscosity • Medium reactivity • Extra stabilized • Statistically process and quality controlled by ISO 9000-2000 • Approvals | <ul style="list-style-type: none"> • Modification of this are approved for use in petrol and oil storage tanks as well as marine application. • Retains mechanical properties at elevated temperatures. • Short application time & Good fiber wetting • Higher fiber content • Ensures fast and thorough glass fiber impregnation, reduces risk of dry patches. • Good curing and low Exotherm ensures quick demolding time and faster production. • Prolong Storage Stability and suitable for high ambient work shop temperature. • Batch-to-batch consistency. • Det norske Veritas (DnV), Grade 1 |
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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.

February 01, 2006
POLYLITE® 721-800 E

PROPERTIES

PHYSICAL DATA IN LIQUID STATE AT 23°C

Properties	Value	Unit	Test method
Viscosity - Brookfield LVF 2/12rpm - Cone & Plate	1300 – 1500 280 – 330	mPa's (cP) mPa's (cP)	ASTM D 2196-1986 ISO 2884-1999
Density	1.10 ± 0.03	g/cm ³	ISO 2811-2001
Acid number (max.)	15	Mg KOH/g	ISO 2114-1996
Styrene content	44 ± 2	% weight	B 070
Flash point	32	°C	ISO 3278-1995
Geltime: 2% NORPOL PEROXIDE No. 1 1% NORPOL PEROXIDE No. 1	25 – 50 50 – 100	minutes minutes	G 020 G 020
Storage stability from date of manufacture	6	°C / °F	G 180

In order to obtain rapid and reliable curing NORPOL® PEROXIDE NO. 1 and corresponding MEK Peroxide is recommended for POLYLITE® 721-800 E.

MECHANICAL/PHYSICAL DATA IN CURED STATE

Fully post-cured

Properties	Pure resin	Reinforced	Unit	Test method
Glass content	-	33	% weight	ISO 1172-1975
Density	1.20	1.46	g/cm ³	ISO 1183-87
Tensile strength	72	125	MPa	ISO 527-1/2-1993
Tensile modulus	3650	7300	MPa	ISO 527-1/2-1993
Tensile elongation	4.0	2.5	%	ISO 527-1/2-1993
Flexural strength	140	190	MPa	ISO 178-1993
Flexural modulus	3300	7200	MPa	ISO 178-1993
Impact strength, P 4 J	12	75	mJ/mm ²	ISO 179-1993
Volume shrinkage	7	-	%	ISO 3521-1976
Heat distortion temp.	86	-	°C	ISO 75-1/2-1993
Hardness Barcol	40	45	934-1	ASTM D 2583-87
Water Absorption - After 24 hours - After 28 days	0.17 0.90	- -	% %	ISO 62-1980 ISO 62-1980

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RECOMMENDED PEROXIDE

All POLYLITE® products are Quality Controlled with the specified Peroxide. However, alternatives are available and all users should be aware that a single Peroxide formulation cannot provide optimum results in all resin systems. The interaction between the Peroxide and the inhibitor/accelerator systems used in our products is complex and varies from resin to resin. Consequently the gel and cure characteristics provided by alternate Peroxide can vary greatly from those specified. It is, therefore, absolutely essential that the user evaluate each alternate Peroxide in each product before full-scale manufacture is started.

Through thorough laboratory work we have found that some types of Peroxide formulation (such as the acetyl acetones) can lead to distinct cured color variation. We would, therefore, strongly recommend the use of single peroxide (NORPOL® Peroxide No.1 / Butanox M-50) especially where consistent light colors are required for the finished articles.

Safety Data Bulletin No. 1 applies to POLYLITE® 721-800 E.

STORAGE

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

PACKAGING FORM

Non-returnable 220 kg metal drums or returnable 1000 kg plastic containers
20 kg pails may be delivered on request.
ISO Road Tanker are available with approximately 24Tons supply.

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.

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