

PRODUCT BULLETIN

June 2011

ENVIROLITE 33050-75

General purpose laminating polyester resin

DESCRIPTION

ENVIROLITE® 33050-75 is a medium reactive terephthalic polyester resin with excellent application properties.

ENVIROLITE® 33050-75 is naturally coloured.

ENVIROLITE® 33050-75 contains wax which gives the cured laminate a tack-free surface and reduced styrene emission.

When prolonged time between laminate layers occurs then the laminate surface should be sanded by sand paper to receive a proper secondary bonding.

ENVIROLITE® 33050-75 is thixotropic and has a built-in accelerator system giving relatively short geltime and rapid curing combined with a very short demoulding time. The curing system makes the resin versatile and suitable for a span of geltime by adjusting the amount of peroxide. Recommended laminate thickness applied wet-on-wet: 1-8 mm. As the resin does not contain adhesive agents, wet-on-wet application is recommended.

ENVIROLITE® 33050-75 is suited for hand lay-up and spray-up application.

APPLICATION

The resin is especially formulated for hand lay-up and spray-up application. The resin has good wettability to reinforcements.

When a laminate is built up in stages with intermediate curing, each operation should be finished off with a normal resin/glassfibre ratio. Any surface area of a cured laminate having an excess of resin, must be abraded before the laminating is continued. Prolonged storage or unfavourable storing conditions may cause some separation, hence agitation of the resin before use is recommended.

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.



FEATURES	BENEFITS
Favourable curing Versatility Statistically process and quality controlled by ISO 9001	 Improved working environment by LSE system (enc. No.1) Suitable for hand lay-up and spray-up Consistent performance, batch-to-batch Minimum geltime drift

PROPERTIES

PHYSICAL DATA IN LIQUID STATE AT 23°C

Properties	Unit	Value	Test Method
Viscosity			
- Brookfield LVF 2/12	mPa.s	1100 – 1300	ASTM D 2196-86
- Cone/plate	mPa.s	300 – 350	ISO 2884-1999
Density/Specific gravity	g/cm ³	cca 1,11	ISO 2811-2001
Acid value	mgKOH/g	max. 30	ISO 2114-1996
Non volatile content	% weight	55,5 ± 2	B070
Flash point	°C	32	ASTM D 3278-95
Geltime: 1% NORPOL PEROXIDE 1 (MEKP)	minutes	35 – 45	G020
Storage stability from date of manufacture	months	6	-

TYPICAL MECHANICAL PROPERTIES

Fully postcured

Properties	Unit	Value	Test Method
Tensile Strength	70	MPa	ISO 527-1993
Tensile Modulus	3000	MPa	ISO 527-1993
Tensile Elongation at break	4	%	ISO 527-1993
Flexural Strength	120	MPa	ISO 178-2001
Flexural Modulus	3200	MPa	ISO 178-2001
Heat Distortion Temperature	105	°C	ISO 75-1993



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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.

PACKAGING FORM

Non-returnable 220 kg metal drums. Containers IBC 1000 kg. Road tank (bulk). 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.