

## Product Information

# EpoxyLite<sup>®</sup> 578EB

1 Component Epoxy VPI Resin

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# EpoxyLite<sup>®</sup> 578EB

## Description:

EpoxyLite<sup>®</sup> 578EB is a Class 180° C epoxy resin system designed for the Impregnation of both random and form wound machines, and is suitable for use on windings rated up to and including 3.3 kV.

For 6.6kV machines, specific insulation structures should be used to optimise impregnation.

EpoxyLite<sup>®</sup> 578EB has excellent tank stability and a relatively short cure cycle. The resin's ability to give both good penetration and high film build means that excellent environmental and chemical protection can be obtained with a single application. This makes the resin ideally suited for both OEM and Electrical Repair Shop use.

## Application:

EpoxyLite<sup>®</sup> 578EB is designed to be applied by a Vacuum Pressure Impregnation process.

## Processing:

Various VPI processes can be carried out using EpoxyLite<sup>®</sup> 578EB, for example:

Random Wound machines: A dry vacuum level of at least 1-2 mbar is recommended for about 15 - 30 minutes before the resin is introduced to the vacuum vessel. The same "wet" vacuum level should be held for 10 -15 minutes prior to a pressure of 60-70 psi being applied for 15-30 minutes.

Form wound stators and armatures up to 3.3 kV a Vacuum of 0.5 mbar or better should be employed for a minimum of 60 mins before the resin is introduced into the vacuum vessel.

For a more complete guide to the processing of components and machines in EpoxyLite<sup>®</sup> 578EB please refer to ELANTAS Technical sales for application specific processing data for this product.

**Containers of EpoxyLite<sup>®</sup> 578EB should be stored in a cool place away from direct sunlight or other heat sources.**

## Maintenance of Resin:

The viscosity and gel-time of EpoxyLite<sup>®</sup> 578EB in tanks should be regularly monitored and maintained within the recommended limits.

A Tank Sample Testing service is available from ELANTAS on request.

## Properties:

Appearance	Clear amber / off white translucent liquid	
Viscosity	3000 - 5500	mPas @ 25°C
Specific Gravity	1.15	g / cm <sup>3</sup>
Mix Ratio	Single Component	p.b.w.
Gelation Time	4.5 – 6.5 minutes	@ 165°C
Cure Schedule	8 - 12 hours	@ 165°C
Flash Point	> 200	°C

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Cured Properties		
Thermal Class	(ASTM D2307 / 20000 hrs)	180° C
Shore D Hardness	(DIN 53505)	90 @ 25° C
Glass Transition Temp.	(IEC 1006)	125° C
Tensile Strength	(ISO 527)	65 N / mm <sup>2</sup>
Elongation at Break	(ISO 527)	4.0 %
Flexural Strength	(ISO 178)	106 Mpa
Flexural Modulus	(ISO 178)	3.7 Gpa
Thermal Coeff of Expansion	(DIN 53752)	50.10 <sup>-6</sup> K <sup>-1</sup>
Thermal Conductivity	(ISO 8894-1)	0.23 W / mK
UL Recognition	E204181	TP 180°C
Water Absorption	(ISO 62)	0.18 % @ 23°C
Dielectric Strength	( IEC 243-1 )	200 kV / cm
Dielectric Constant	(IEC 250)	3.50 @ 50Hz
Dissipation Factor	(IEC 250)	0.003 @ 20° C
Volume Resistivity	(IEC 93)	> 10 <sup>13</sup> ohm / cm
Comparative Tracking Index	(IEC 112)	> 550 Volts
Storage	Minimum storage life 12 months in tightly closed containers at temperatures below 25°C.	
Handling	Refer Material safety data sheet.	
Issue	January 2008	
<p>Our advice in application technology given verbally, in writing and by testing corresponds to the best of our knowledge and belief, but is intended as information given without oblige, also with respect to any protective rights held by third parties. It does not relieve you from your own responsibility to check the products for their suitability to the purposes and processes intended. The application, usage and processing of the products are beyond our reasonable control and will completely fall into your scope of responsibility. Should there nevertheless be a case of liability from our side, this will be limited to any damage to value of the merchandise delivered by us. Naturally, we assume responsibility for the unobjectionable quality of our products, as defined in our General Terms and conditions.</p>		