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TECHNICAL INFORMATION

POLIMAL® 109 AWTP

Application

Polimal® 109 AWTP is recommended for production of polyester-glass laminates by hand lay-up and spray lay-up.

Resin characteristics

Polimal® 109 AWTP is constructional, moderately flexible, orthophthalic, thixotropic, low styrene emission, pre-accelerated, unsaturated polyester resin with colourful curing indicator.

Typical parameters

Parameter	Unit	Value
Viscosity at 25°C Brookfield sp.21/rpm.100 acc. to ISO 3219	mPa s	**150 ÷ 200**
Gel time at 25°C acc. to DIN 16945	min	**6 ÷ 15**
Tensile strength acc. to ISO 527	MPa	**70**
Flexural strength acc. to ISO 178	MPa	**110**
Tensile modulus acc. to ISO 527	MPa	**4300**
Elongation at break acc. to ISO 527	%	**2**
Heat deflection temperature (HDT) acc. to ISO 75	ºC	**63**
Barcol hardness ASTM –D 2583-95	°B	**45**
Guarantee period	months	**3**

Gel time with: 2% Luperox® K-1S

Mechanical parameters refer to not reinforced resin curing for 24 hours at room temperature and post curing for 2 hours at 80^{0}C.

Storage conditions

Polimal® 109 AWTP should be stored in close package in a dry, shady and cool places, adapted for storing flammable materials at temperatures not exceeding 25°C.

Processing conditions

The resin should be mixed before use. Good curing required ambient temperature above 18°C and low air humidity. The best curing conditions are obtained using 2% MEKP as hardener. It is possible to adjust gel time by varying of amount of hardener, the best within in the range of 1 – 2 %. The final curing could be optimalize by postcuring at elevated temperatures. The content of styrene emission suppressant in the **Polimal® 109 AWTP** intensifies decreasing the interlayer adhesion, therefor it is necessary to laminate so as not to leave too much resin on the laminate surface that is to be laminated again. If the stoppage in laminating is longer than 24 hours or the resin amount on the laminate is too big, it is necessary to polish (or sand blast) the laminate surface before laying down the next layer

Polimal® is the trade name reserved for unsaturated polyester resins produced by **CIECH - Sarzyna S.A.**

Luperox® is the trade name registered for products of **ARKEMA** company.

Data and suggestions included in this document are on the basis of our own tests and are considered by us as reliable. However, we cannot take any responsibility for actions and losses directly or indirectly resulted from using our products. User should check the product quality, safety and properties before its using.

Note:
The information does not substitute Material Safety Data Sheet or Technical Specification, which are superior documents and are available on the customer's request.

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