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TECHNICAL INFORMATION

POLIMAL® 1094 AWTP-2

Application

Polimal® 1094 AWTP-2 is recommended for production of laminates as hand lay-up and spray-up, from which sport and tourist floating equipment, baths, paddling pools, tanks etc. are produced.

Resin characteristics

Polimal® 1094 AWTP-2 is constructional, moderately flexible, orthophthalic, thixotropic, low styrene emission, pre-accelerated with colourful curing indicator. It is used for production of polyester-glass laminates with thickness to 5 mm. **Polimal® 1094 AWTP-2 meets requirements of DIN 16946/1 type 1110**.
Polimal® 1094 AWTP-2 is approved by Lloyd's Register.

Typical parameters

Parameter	Unit	Value
Viscosity at 23°C Physica S 2/20 s^{-1} acc. to ISO 3219	mPa s	**300÷450**
Gel time at 25°C acc. to DIN 16945	min	**25÷33**
Peak time acc. to DIN 16945	min	**39÷47**
Exothermic peak acc. to DIN 16945	°C	**90÷110**
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	°C	**63**
Barcol hardness ASTM –D 2583-95	°B	**45**
Guarantee period	months	**3**

Reactivity is determined with 2,5g Luperox® K-1S added to 100g of resin.

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

Storage conditions

Polimal® 1094 AWTP-2 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® 1094 AWTP-2** 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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