

TECHNICAL INFORMATION

Polimal® 1094 AWTP-1

DATA: 18-02-2022

POLIMAL® 1094 AWTP-1 is an orthophthalic accelerated thixotropic unsaturated polyester resin with colour curing indicator.

Holds Lloyd's Register Certificate No. MATS 2782/3.

APPLICATION

Designed for production of polyester glass laminates by hand lay-up and spray-up. Recommended for to 5 mm thick laminates.

PROPERTIES

- medium flexibility
- reduced styrene emission
- good processing parameters
- low thermal peak

PACKAGING

220 kg, 1100 kg, storage tank

SHELF LIFE

3 months from date of manufacture

PROCESSING CONDITIONS

The resin should be mixed before use. Good curing requires ambient temperature above 18 °C and low air humidity. The best curing conditions are obtained using 1% 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 optimized by post-curing at elevated temperatures.

The LSE agent decreases interlayer adhesion, therefore one should avoid leaving too much resin on the laminate surface if it shall be laminated again. If the break in laminating is longer than 24 hours or there is too much resin, it is necessary to polish (or sand blast) the laminate surface before adding the next layer.

STORAGE

POLIMAL® 1094 AWTP-1 should be stored in closed packaging in a dry, cool place, protected from sunlight and suitable for storage of flammable materials at temperatures not exceeding 25 °C.

Typical parameters of Polimal 1094 AWTP-1

Parameter	Unit	Value
Viscosity at 23 °C Physica S 2/20 s ⁻¹ acc. to ISO 3219	mPa s	300 ÷ 400
Gel time at 25 °C acc. to DIN 16945	min	19 ÷ 26
Peak time acc. to DIN 16945	min	30 ÷ 42
Exothermic peak acc. to DIN 16945	°C	74 ÷ 115
Tensile strength acc. to ISO 527	MPa	70
Flexural strength acc. to ISO 178	MPa	110
Tensile modulus acc. to ISO 527	MPa	4 300
Elongation at break acc. to ISO 527	%	2
Heat deflection temperature (HDT) acc. to ISO 75	°C	63

Reactivity with 1% of Luperox® K-1S

Mechanical parameters refer to unreinforced resin cured for 24 hours at room temperature and post-curing for 2 hours at 80 °C.

Polimal® is the trade name reserved for unsaturated polyester resins produced by **Sarzyna Chemical**.

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.

