

TECHNICAL INFORMATION

POLIMAL[®] 1090 AWTP

Application

Polimal 1090 AWTP is recommended for the production of laminates with the good adhesion to ABS, by hand or lay-up.

Resin characteristics

Polimal 1090 AWTP is constructional, orthophthalic, moderately flexible, thixotropic, low styrene emission, pre-accelerated, with changing-color curing indicator, unsaturated polyester resin. The main advantage is excellent wetting of glass fibers and fast postcuring. Low viscosity allows to introduce a significant amounts of fillers.

Polimal 1090 AWTP S - is the version with titanium dioxide.

Typical parameters

Parameter	Unit	Value
Viscosity at 25°C sp.21, rpm. 100 acc. to ISO 3219	mPa s	150÷200
Gel time at 25°C acc. to ISO 2535	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	°C	63
Guarantee period	months	3

Gel time with 2% Luperox K-1 S.

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 1090 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 optimize by postcuring at elevated temperatures. The content of styrene emission suppressant in the **Polimal 1090 AWTP** intensifies decreasing the interlayer adhesion, therefore 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.

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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.