

# polimal<sup>®</sup> 1094 AWTP-2

unsaturated polyester resin

## Application

The resin **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, accelerated, with low styrene emission and colourful curing indicator.

It is used for production of polyester-glass laminates with thickness above 5 mm. It has the certificate: **Lloyd's Register MATS/2782/2**.

## Advantages of usage

- very good processing features,
- good wettability of glass fibre,
- favourable curing characteristics
- good resistance parameters

## Parameters of resin Polimal 1094 AWTP-2

Tested parameters/standard	Unit	Value
Viscosity, at 20 s <sup>-1</sup> (ISO 3219),23°C acc. to ISO 3219, 23°C	mPa s	300-400
Gel time, at 25°C acc. to ISO 2535	minut	25-35
Styrene content	%	42-46
Flexural strength, min acc. to ISO 178	MPa	110
Rupture stress, min acc. to ISO 527-2	MPa	70
Tensile modulus acc. to ISO 527	MPa	4300
Elongation at tension acc. to ISO 527	%	2
Heat deflection temperature (HDT) acc. to ISO 75	°C	63
Guarantee period	months	3

gel time : 1% MEKP [Luperox K-1]

Mechanical properties are given for the resin that is not thixotropic cured with 1 ml MEKP – Luperox K-1 i 0,2 ml Co-oct. solution (1% Co in styrene). Curing 24 hours at room temperature and post-curing 24 hours at 80°C.

## Storage conditions

The resin should be stored in closed original containers, in dry, well ventilated and shaded storage rooms adapted for storing inflammable materials at the temperature below 25°C.

## Processing conditions

The resin of the temperature above 15°C is required for processing. Mix the resin in the tank or in the unit packages before using. The content of styrene emission suppressant in the resin 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.

Good curing requires the ambient temperature above 18°C and the low air humidity. It is accelerated resin with relatively short and stable gel time during storing.

Good curing conditions can be achieved while using 1 % hardener e.g. Luperox K-1.

The gel time can be controlled with changing the amount of hardener (preferable within the range 1 – 2 %).

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## **Note:**

The information does not substitute Material Safety Data Sheet, Company Standard or Technical Specification, which are superior documents and available on request.