

Technical information

# Polimal® 104 AWTP-3

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**Polimal® 104 AWTP-3** is an accelerated, thixotropic, orthophthalic, unsaturated polyester resin with colorful curing indicator system.

This resin meets the requirements of **DIN 16 946/2 type 1140**.

## APPLICATION

**Polimal® 104 AWTP-3** is designed for the production of polyester glass laminates by hand lay-up or spray-up.

## PACKAGING

220 kg, 1100 kg

## SHELF LIFE

3 months from the production date.

## STORAGE

The resin should be stored in closed original containers, in dry, well ventilated and shaded warehouse compartments adapted for storage of combustible materials at a temperature below 25°C.

## CURING SYSTEM

Good curing conditions are received while using : 1-2% of hardener MEKP e.g. Luperox K-1S. The gel time control is reached by changing the amount of the hardener ( within the range as above). By reducing the amount of hardener [the best within the range of 10-20 ml/kg of the resin], the temperature peak can be decreased. It requires to increase the amount of accelerator in order to keep the gel time. Finally, curing could be optimized by post-curing at elevated temperatures.

## SPECIFICATION

| Parameter                                   | Unit  | Value          |
|---|-------|----------------|
| <b>Viscosity (25°C)</b><br>acc. ISO 3219    | mPa s | <b>250÷350</b> |
| <b>Gel time (25°C)</b><br>acc. ISO 2535     | min   | <b>36÷45</b>   |
| <b>Flexural strength</b><br>acc ISO 178     | MPa   | <b>min 120</b> |
| <b>Tensile strength</b><br>acc . ISO 527    | MPa   | <b>min 80</b>  |
| <b>Tensile modulus</b><br>acc . ISO 527     | MPa   | <b>3600</b>    |
| <b>Elongation at break</b><br>acc ISO 527   | %     | <b>min 3,0</b> |
| <b>Heat resistance, HDT</b><br>acc . ISO 75 | °C    | <b>min 90</b>  |
| <b>Barcol Hardness</b><br>acc . ASTM D 2583 | °B    | <b>&gt; 40</b> |
| <b>Absorbability of water ter 7days</b>     | mg    | <b>&lt; 60</b> |

**Curing system:** 2% MEKP medium active eg. Luperox K-1S

Mechanical parameters refer to unreinforced resin cured for 24 hours at room temperature and post-cured for 8 hours at 80 °C.

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