

**TECHNICAL INFORMATION****POLIMAL<sup>®</sup>****106 R****Application**

**Polimal 106 R** is recommended for production of polymer concrete.

**Features**

**Polimal 106 R** is orthophthalic, neutral resin with good stability. It is characterised with great reactivity which enables to cure that resin while keeping relatively long gel time. The products made out of that resin have high rigidity, hardness and thermal resistance.

Advantages of the resin use:

- good miscibility and insertion of mineral fillers in the resin
- very good resistant parameters of the cured resin
- good processing features.

**Typical parameters**

| Parameter/Standard   | Unit  | Value            |
|--|-------|------------------|
| <b>Viscosity at 23°C</b><br>acc.to ISO 3219                | mPa s | <b>190 - 240</b> |
| <b>Gel time at 25°C</b><br>acc. to DIN 2535                | min   | <b>3 – 8</b>     |
| <b>Flexural strenght</b><br>acc. to ISO 178                | MPa   | <b>110</b>       |
| <b>Tensile modulus</b><br>acc. to ISO 527                  | MPa   | <b>3700</b>      |
| <b>Elongation at breake</b><br>acc. to ISO 527             | %     | <b>3,6</b>       |
| <b>Heat Deflection Temperature (HDT)</b><br>acc. to ISO 75 | °C    | <b>85</b>        |
| <b>Barcoll hardness</b><br>ASTM-D 2583-95                  | °B    | <b>41</b>        |
| <b>Guarantee period</b>                                    | month | <b>6</b>         |

Czas żelowania z: 0,4% accelerator Co1% + 2,0% Luperox K-1S

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 106 R** should be stored in close package in a dry, shady and cool places at temperatures not exceeding 25°C.

**Processing conditions**

**The resin should be mixed before use.** The resin of the temperature above 15°C is required for processing. Good curing requires ambient temperature at least 18°C and low air humidity. The favourable curing conditions are received while using in 1kg resin: cobalt accelerator 1% Co in the amount of 4 - 25 ml and 10-20 ml of MEKP hardener (e.g. Luperox K-1).

Gel time control is achieved by changing the amount of accelerator (within the range as above). By reducing the amount of hardener (the best within the range 10 - 20 ml/kg of resin), the temperature peak can be reduced. It requires increasing the amount of accelerator in order to keep the gel time.

**Polimal<sup>®</sup>** is the trade name reserved for unsaturated polyester resins produced by **CIECH - Sarzyna S.A.**

**Luperox<sup>®</sup>** 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.