

Technical information

Polimal® 104

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Polimal® 104 is an not accelerated, medium reactivity, ortophtalic polyester resin.

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

APPLICATION

Polimal® 104 is designed for the production glass-polyester laminates by various techniques e.g. filament winding, pultrusion.

PACKAGING

220 kg, 1100 kg

SHELF LIFE

6 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

Resin should be warmed to at least 18°C/65°F prior to use in order to assure proper curing and handling. Good curing conditions are received while using: cobalt accelerator Co1% in the amount of 0,5% ÷ 1,5% as well as 1% - 2% MEKP. 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
Viscosity (25°C) acc. to ISO 3219	mPa s	300÷400
Gel time (25°C) acc. to DIN 16945	min	14÷24
Time to peak acc. to DIN 16945	min	max 40
Peak temperature acc. to DIN 16945	°C	140÷180
Volatile content acc. to PN/89082/08	%	max. 45
Flexural strength acc ISO 178	MPa	120
Tensile strength acc . ISO 527	MPa	80
Tensile modulus acc . ISO 527	MPa	3600
Elongation at break acc ISO 527	%	3,0
Heat resistance, HDT acc . ISO 75	°C	90
Barcol Hardness acc . ASTM D 2583	°B	> 40
Absorbability of water after 7days	mg	< 60

Curing system: 1% cobalt accelerator Co1% and 1,1% Butanox M-50

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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