

Product data

Palatal E 240-02

Chemical/physical nature

Palatal E 240-02 is an unsaturated polyester resin dissolved in styrene. Palatal E 240-02 has a low reactivity and a low viscosity.

Major applications

Palatal E 240-02 is used with and without filler for the production of highly impact resistant and flexible mouldings.

In particular Palatal E 240-02 can be mixed with other Palatal- and Synolite-grades to improve flexibility and/or toughness of the mouldings. A special application field of this resin is the production of wood imitation parts, which not only allow to apply normally wood-processing techniques but also a processability most similar to wood.

Approvals

Cured unreinforced Palatal E 240-02 conforms to type 1100 according to DIN 16 946/2.

Properties of the liquid resin (specifications)

Property	Range	Unit	TM
Appearance	clear	-	2265
Colour, Lico 200	0 - 120	APHA	2017
Viscosity, 23°C	300 - 370	MPa.s	2014
Solids content, IR	60 - 63	%	2033
Acid value as such	15 - 19	MgKOH/g	2401
Cure time from 25 to 35°C	25 - 31	Min	2625
Cure time from 25°C to peak	38 - 48	Min	2625
Peak temperature	85 - 115	°C	2625

Remarks

Viscosity measurement: $S\ 2/100\ s^{-1}/23^{\circ}C$
 Reactivity determined with 1.0 g Trigonox 44B (AKZO-Nobel) and 1.0 g Accelerator NL 49P (AKZO-Nobel) added to 100 g of resin

Typical values of the liquid resin

Property	Value	Unit	TM
Flash point	appr. 33	°C	2800
Stability, no init., dark, 25°C	6	Mon	-

Typical values of cast unfilled resin

Property	Value	Unit	TM
Tensile strength	19	MPa	ISO 527-2
Mod. of elasticity in tension	0.4	GPa	ISO 527-2
Elongation at break	75	%	ISO 527-2
Impact res. - unnotched sp.	100	kJ/m ²	ISO 179
Glass transition temp. (Tg)	48	°C	DIN 53445

Curing conditions

Cured with 1.0 ml MEKP-HA 2 (Peroxid-Chemie GmbH) and 0.2 ml Co-oct. solution (1 % Co in styrene) added to 100 g resin. Cured 24 h at room temperature and 24 h at 80°C.

Processing

Palatal E 240-02 does normally not exhibit tack-free cure. In order to ensure tack-free cure of surfaces exposed to air, suitable additives (e.g. paraffin solution) should be added.

Storage guidelines

The resin should be stored indoors in the original, unopened and undamaged packaging in a dry place at temperatures between 5 °C and 30 °C. Shelf life is reduced at higher temperatures. The shelf life of styrene containing unsaturated polyesters will be significantly reduced when exposed to light. Store in dark and in 100% light tight containers only.

Guidelines before use

The resin should be conditioned at a well defined, application dependant temperature (usually 15 °C minimum for a MEKP/Co cure).

Material Safety

A Material Safety Data Sheet of this product is available on request.