

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 moldings.

In particular Palatal® E 240-02 can be mixed with other Palatal®- and Synolite™-grades to improve flexibility and/or toughness of the moldings.

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 process ability most similar to wood.

APPROVALS

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

PRODUCT SPECIFICATIONS UPON DELIVERY

Property	Range	Unit	TM
Appearance	clear	-	2265
Color, Lico 200	0 - 140	APHA	2017
Viscosity, 23°C	300 - 370	MPa.s	2014
Solids content, IR	60 - 63	%	2033
Acid value as such	15 - 19	mg KOH/g	2401
Cure time from 25 to 35°C	21 - 26	Minute	2625
Cure time from 25°C to peak	33 - 41	Minute	2625
Peak temperature	95 - 115	°C	2625

REMARKS

Viscosity measurement: S 2/100 s⁻¹/23°C

Reactivity determined with 1.0 g Trigonox 44B and 1.0 g Perg. CP12

PROPERTIES OF THE LIQUID RESIN (TYPICAL VALUES)

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

PROPERTIES OF CAST UNFILLED RESIN (TYPICAL VALUES)

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-octoate solution (1 % Co in styrene) added to 100 g resin. Cured for 24 hrs. at room temperature and 24 hrs. 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.

GUIDELINES BEFORE USE

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

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 and the properties might change during storage. Shelf life is reduced at higher temperatures and the properties of the resin might change during storage. 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.

MATERIAL SAFETY

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

TEST METHODS

Test methods (TM) referred to in the table(s) are available on request.

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