

PALATAL® P 61 V-12V

CHEMICAL/PHYSICAL NATURE

Palatal® P 61 V-12V is an unsaturated polyester based on orthophthalic acid and standard glycols, dissolved in styrene.

The resin has a high reactivity and a medium viscosity. The resin is pre accelerated.

MAJOR APPLICATIONS

Palatal® P 61 V-12V is particularly suitable for the production of glass-fiber reinforced moldings that have a low cracking susceptibility despite a high resistance to heat deformation (e.g. tanks, pipes, press moldings).

APPROVALS

Cured unreinforced Palatal® P 61 V-12V conforms to type 1140 according to DIN 16 946/2 and is classified in group 1 according to DIN 18 820/1.

PRODUCT SPECIFICATIONS UPON DELIVERY

Property	Range	Unit	TM
Appearance	clear	-	2265
Viscosity, 23°C	700 - 900	mPa.s	2013
Solids content, IR	62 - 65	%	2033
Gel time from 25 to 35°C	9 - 11	Minute	2625
Cure time from 25°C to peak	13 - 17	minute	2625
Peak temperature	155 - 185	°C	2625

REMARKS

Viscosity measurement: Z2/100 s⁻¹/23°C

The curing characteristics are obtained using 1.0 g Trigonox 44 B (AKZO-Nobel) added to 100 g resin.

PROPERTIES OF THE LIQUID RESIN (TYPICAL VALUES)

Property	Value	Unit	TM
Density, 20°C	1080	kg/m ³	-
Refractive index, 23°C	1.5415	-	2150
Flash point	33	°C	-
Stability, no init., dark, 25°C	6	month	-

PROPERTIES OF CAST UNFILLED RESIN (TYPICAL VALUES)

Property	Value	Unit	TM
Tensile strength	85	MPa	ISO 527-2
Tensile E-modulus	4.4	GPa	ISO 527-2
Elongation at break	2.8	%	ISO 527-2
Flexural strength	160	MPa	ISO 178
Flexural E-Modulus	4.6	GPa	ISO 178
Outer fiber strain	4.6	%	ISO 178
Impact res. - unnotched sp.	13	kJ/m ²	ISO 179
Heat Deflection Temp. (HDT)	90	°C	ISO 75-A
Glass transition temp. (Tg)	122	°C	DIN 53445

CURING CONDITIONS

The mechanical characteristics are obtained curing the resin with 1ml MEKP-HA 2 (Peroxid-Chemie GmbH) and 0.4 ml Co-octoate solution (1% Co in styrene) added to 100 g resins. Cured for 24 hrs. at RT and post-cured for 24 hrs. at 100 °C.

Dimensions of the test specimen for HDT measurement: 1/4"x1/2"x5"

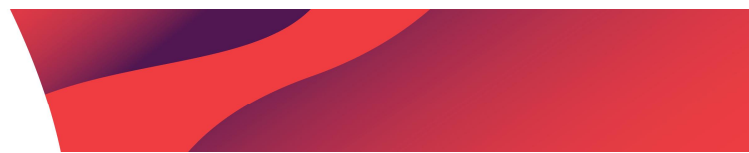
PROCESSING

Palatal® P 61 V-12V normally does not exhibit tack-free cure. To ensure tack-free cure of surfaces exposed to air, suitable additives (e.g. paraffin solution) should be added.

The final state of cure may be optimized by post-curing at elevated temperatures (e.g. 80 °C) for several hours.

GUIDELINES BEFORE USE

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.

Aliancys is a leading global company active in the sales of Quality Resins for composite applications. Together with its customers, Aliancys is pushing the limits of both composite part manufacturing and performance. Taking an integral approach to new product development, Aliancys is using its full expertise in resin chemistry, material science, and component manufacturing for shaping new applications in composites. So let's talk and increase our mutual business success, both today and tomorrow. More information on www.aliancys.com

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