

# Product Data Sheet

## Palatal P 6-01

### Chemical/physical nature

Palatal P 6-01 is an unsaturated polyester based on orthophthalic acid and standard glycols, dissolved in styrene.

The resin has a high reactivity and a medium viscosity.

### Major applications

Palatal P 6-01 is suitable for a wide range of applications. It is used for unreinforced as well as for glass-fibre reinforced mouldings.

Palatal P 6-01 is particularly suitable for the production of pipes, profiles, tanks, vessels, boats and parts of automotive bodies.

### Approvals

Cured unreinforced Palatal P 6-01 conforms to type 1140 according to DIN 16 946/2 and is classified in group 1B according to EN 13 121-1.

### Product specifications upon delivery

Property	Range	Unit	TM
Appearance	clear	-	2265
Colour, APHA	0 - 80	-	2017
Viscosity, 23°C	900 - 1200	mPa.s	2013
Solids content, IR	64 - 67	%	2033
Gel time from 25 to 35°C	16 - 21	minutes	2625
Cure time from 25°C to peak	19 - 25	minutes	2625
Peak temperature	170-190	°C	2625

### Remarks

Viscosity:  $Z2/100 \text{ s}^{-1}/23^\circ\text{C}$

The curing characteristics are obtained using 1g of Trigonox 44 B (AKZO-Nobel) and 0,5 g Accelerator NL 49 P (AKZO-Nobel) added to 100 g resin.

### Properties of the liquid resin (typical values)

Property	Value	Unit	TM
Refractive index, 23°C	1.5325	-	2150
Flash point	± 33	°C	2800
Acid value, as such	31	mg KOH/g	2401
Stability, no init., dark,	6	months	-

### Properties of cast unfilled resin (typical values)

Property	Value	Unit	TM
Tensile strength	90	MPa	ISO 527-2
Tensile E-modulus	4.6	GPa	ISO 527-2
Elongation at break	2.8	%	ISO 527-2
Flexural strength	150	MPa	ISO 178
Flexural E-Modulus	4.6	GPa	ISO 178
Outer fibre strain	3.6	%	ISO 178
Impact res. - unnotched sp.	9	kJ/m <sup>2</sup>	ISO 179
Heat Deflection Temp. (HDT)	104	°C	ISO 75-A
Glass transition temp. (Tg)	135	°C	DIN 53445

### Curing conditions

The mechanical characteristics are obtained curing the resin with 1ml MEK-Peroxide (medium reactive) and 0.2 ml Co-oct. solution (1% Co in styrene) added to 100 g resins. Cured for 24 h at RT and post-cured for 24 h at 80 °C.

### Processing

Palatal P 6-01 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 optimised 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 dependant 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. 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 for the product is available on request.

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### Test methods

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

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