

TECAFINE PMP natural - Stock Shapes (rods, plates, tubes)

Chemical Designation

PMP (Polymethylpentene)

Colour

light yellow transparent

Density

0.83 g/cm³

Main features

- good chemical resistance
- electrically insulating
- good machinability
- easy to polish
- high creep resistance
- low density
- high toughness

Target Industries

- food technology
- mechanical engineering
- automotive industry

Mechanical properties	parameter	value	unit	norm	comment
Tensile strength	50mm/min	26	MPa	DIN EN ISO 527-2	(1) For tensile test: specimen type 1b
Modulus of elasticity (tensile test)	1mm/min	1000	MPa	DIN EN ISO 527-2	(2) For flexural test: support span 64mm, norm specimen.
Tensile strength at yield	50mm/min	26	MPa	DIN EN ISO 527-2	(3) Specimen 10x10x10mm
Elongation at yield (tensile test)	50mm/min	6	%	DIN EN ISO 527-2	(4) Specimen 10x10x50mm, modulus range between 0.5 and 1% compression.
Elongation at break (tensile test)	50mm/min	67	%	DIN EN ISO 527-2	(5) For Charpy test: support span 64mm, norm specimen.
Flexural strength	2mm/min, 10 N	31	MPa	DIN EN ISO 178	(6) Specimen in 4mm thickness
Modulus of elasticity (flexural test)	2mm/min, 10 N	800	MPa	DIN EN ISO 178	
Compression strength	1% / 2% 5mm/min, 10 N	11 / 19	MPa	EN ISO 604	(3)
Compression modulus	5mm/min, 10 N	1000	MPa	EN ISO 604	(4)
Impact strength (Charpy)	max. 7,5J	17	kJ/m ²	DIN EN ISO 179-1eU	(5)
Ball indentation hardness		58	MPa	ISO 2039-1	(6)
Thermal properties	parameter	value	unit	norm	comment
Service temperature	short term	170	°C		(1) Found in public sources. Individual testing regarding application conditions is mandatory.
Service temperature	long term	120	°C		
Electrical properties	parameter	value	unit	norm	comment
Other properties	parameter	value	unit	norm	comment
Water absorption	24h / 96h (23°C)	<0.01 / <0.01	%	DIN EN ISO 62	(1) Ø ca. 50mm, h=13mm
Resistance to hot water/ bases		(+)		-	(2) (+) limited resistance
Resistance to weathering		-		-	(3) - poor resistance
Flammability (UL94)	corresponding to	HB		DIN IEC 60695-11-10;	(4) Corresponding means no listing at UL (yellow card). The information might be taken from resin, stock shape or estimation. Individual testing regarding application conditions is mandatory.

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