

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 (2) (+) limited resistance (3) - poor resistance (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.
Resistance to hot water/ bases		(+)		-	(2)
Resistance to weathering		-		-	(3)
Flammability (UL94)	corresponding to	HB		DIN IEC 60695-11-10;	(4)

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