

## TECAPRO MT white - Stock Shapes

### Chemical Designation

PP (Polypropylene)

### Colour

white opaque

### Density

0.93 g/cm<sup>3</sup>

### Fillers

heat stabilized

### Main features

- heat stabilized
- biocompatible
- good chemical resistance
- hydrolysis and superheated steam resistant
- low moisture absorption
- good slide and wear properties

### Target Industries

- medical technology
- food technology
- pharmaceutical industry

Mechanical properties	parameter	value	unit	norm	comment
Modulus of elasticity (tensile test)	1mm/min	2000	MPa	DIN EN ISO 527-2	1) (1) For tensile test: specimen type 1b
Tensile strength	50mm/min	34	MPa	DIN EN ISO 527-2	(2) For flexural test: support span 64mm, norm specimen.
Tensile strength at yield	50mm/min	34	MPa	DIN EN ISO 527-2	(3) Specimen 10x10x10mm
Elongation at yield	50mm/min	5	%	DIN EN ISO 527-2	(4) Specimen 10x10x50mm, modulus range between 0.5 and 1% compression.
Elongation at break	50mm/min	67	%	DIN EN ISO 527-2	(5) For Charpy test: support span 64mm, norm specimen.
Flexural strength	2mm/min, 10 N	54	MPa	DIN EN ISO 178	(2) (6) Specimen in 4mm thickness
Modulus of elasticity (flexural test)	2mm/min, 10 N	1800	MPa	DIN EN ISO 178	
Compression strength	1% / 2% 5mm/min, 10 N	16 / 26	MPa	EN ISO 604	3)
Compression modulus	5mm/min, 10 N	1600	MPa	EN ISO 604	4)
Impact strength (Charpy)	max. 7,5J	140	kJ/m <sup>2</sup>	DIN EN ISO 179-1eU	5)
Ball indentation hardness		100	MPa	ISO 2039-1	6)
Thermal properties	parameter	value	unit	norm	comment
Glass transition temperature		-10	°C	DIN EN ISO 11357	1) (1) Found in public sources.
Melting temperature		165	°C	DIN EN ISO 11357	(2) Found in public sources.
Heat distortion temperature	HDT, Method A	87	°C	ISO-R 75 Method A	Individual testing regarding application conditions is mandatory.
Service temperature	short term	140	°C		2)
Service temperature	long term	100	°C		
Thermal expansion (CLTE)	23-60°C, long.	13	10 <sup>-5</sup> K <sup>-1</sup>	DIN EN ISO 11359-1;2	
Thermal expansion (CLTE)	23-100°C, long.	14	10 <sup>-5</sup> K <sup>-1</sup>	DIN EN ISO 11359-1;2	
Electrical properties	parameter	value	unit	norm	comment
Specific surface resistance		10 <sup>14</sup>	Ω	DIN IEC 60093	
Specific volume resistance		10 <sup>14</sup>	Ω*cm	DIN IEC 60093	
Other properties	parameter	value	unit	norm	comment
Water absorption	24h / 96h (23°C)	0.01 / 0.02	%	DIN EN ISO 62	1) (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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