

TECASINT 2061 - Stock Shapes

Chemical Designation

PI (Polyimide)

Colour

anthracite

Density

1.52 g/cm³

Fillers

15% graphite, 10% PTFE

Main features

- very good slide and wear properties
- good wear resistance
- high thermal and mechanical capacity
- resistance against high energy radiation
- good chemical resistance
- sensitive to hydrolysis in higher thermal range

Target Industries

- automotive industry
- aircraft and aerospace technology
- conveyor technology
- mechanical engineering
- precision engineering
- textile industry
- vacuum technology

Mechanical properties	parameter	value	unit	norm	comment
Modulus of elasticity (tensile test)	1 mm/min, 23°C	3900	MPa	DIN EN ISO 527-1	
Tensile strength	50 mm/min, 23°C	63	MPa	DIN EN ISO 527-1	
Elongation at break	50 mm/min, 23°C	2.7	%	DIN EN ISO 527-1	
Elongation at break	10 mm/min, 23°C	3.3	%	DIN EN ISO 178	
Flexural strength	10 mm/min, 23°C	89	MPa	DIN EN ISO 178	
Modulus of elasticity (flexural test)	2 mm/min, 23°C	3490	MPa	DIN EN ISO 178	
Compression strength	10 mm/min, 23°C	164	MPa	EN ISO 604	
Compression strength	10mm/min, 10% strain, 23°C	142	MPa	EN ISO 604	
Compression modulus	1 mm/min, 23°C	1748	MPa	EN ISO 604	
Compressive strain at break	10 mm/min, 23°C	16.4	%	EN ISO 604	
Impact strength (Charpy)	max 7.5 J, 23°C	19.4	kJ/m ²	DIN EN ISO 179-1eU	
Notched impact strength (Charpy)	max 7.5 J, 23°C	3.2	kJ/m ²	DIN EN ISO 179-1eA	
Shore hardness	Shore D, 23°C	84	D	DIN 53505	
Thermal properties	parameter	value	unit	norm	comment
Glass transition temperature			°C	-	1) (1) DMA, maximum loss factor tan δ
Service temperature	long-term	-	°C	-	2) (2) Found in public sources.
Thermal expansion (CLTE)	50-200°C	4.0 /	10 ⁻⁵ K ⁻¹	DIN 53 752	3) Individual testing regarding application conditions is mandatory.
Thermal expansion (CLTE)	200-300°C	5.0 /	10 ⁻⁵ K ⁻¹	DIN 53 752	4) Thermal expansion XY/Z axis
					(4) Thermal expansion XY/Z axis
Other properties	parameter	value	unit	norm	comment
Water absorption	24 h in water, 23°C	0.35	%	DIN EN ISO 62	(1) 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.
Water absorption	24 h in water, 80°C	1.5	%	DIN EN ISO 62	
Flammability (UL94)	corresponding to	V0		DIN IEC 60695-11-10;	1)

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