TECASINT 6062 black - Direct Forming

Chemical Designation
PI (Polyimide)

Colour
black

Density
1.51 g/cm^3

Fillers
graphite, PTFE

Production process: direct forming

Main features
- excellent slip-stick properties
- very good slide and wear properties
- resistance against high energy radiation
- good chemical resistance
- sensitive to hydrolysis in higher thermal range

Target Industries
- mechanical engineering
- automotive industry
- aircraft and aerospace technology

Mechanical properties	parameter	value	unit	norm	comment
Tensile strength	50 mm/min	50	MPa	DIN EN ISO 527-1	
Modulus of elasticity (tensile test)	1 mm/min	4100	MPa	DIN EN ISO 527-1	
Elongation at break (tensile test)	50 mm/min	2.1	%	DIN EN ISO 527-1	
Flexural strength	10 mm/min	75	MPa	DIN EN ISO 178	
Modulus of elasticity (flexural test)	2 mm/min	4200	MPa	DIN EN ISO 178	
Elongation at break (flexural test)	10 mm/min	2.3	%	DIN EN ISO 178	
Compression strength	10 mm/min	125	MPa	EN ISO 604	
Compression strength	10mm/min, 10% strain	120	MPa	EN ISO 604	
Compressive strain at break	10 mm/min	17	%	EN ISO 604	
Shore hardness	Shore D	82		DIN EN ISO 868	

Thermal properties	parameter	value	unit	norm		comment
Glass transition temperature		286	°C	-	1)	(1) DMA, maximum loss factor tan d (2) Thermal expansion XY/Z axis (3) Thermal expansion XY/Z axis
Thermal expansion (CLTE)	50-200°C	2.2 / -	10^{-5} K^{-1}	DIN EN ISO 11359-1;2	2)	
Thermal expansion (CLTE)	200-300°C	5.8 / -	10^{-5} K^{-1}	DIN EN ISO 11359-1;2	3)	

Other properties	parameter	value	unit	norm		comment
Water absorption	24 h in water, 23°C	0.2	%	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.
Flammability (UL94)	corresponding to	V0		DIN IEC 60695-11-10;	1)	

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