

TECASINT 6022 black in Bearbeitung - Direct Forming

Chemical Designation

PI (Polyimide)

Colour

black

Density

1.47 g/cm³

Fillers

graphite

Production process: direct forming

Main features

very good slide and wear properties
 good wear resistance
 very high thermal and oxidative resistance
 high thermal and mechanical capacity
 high creep resistance
 low thermal expansion
 resistance against high energy radiation
 sensitive to hydrolysis in higher thermal range

Target Industries

mechanical engineering
 aircraft and aerospace technology
 cryogenic engineering
 vacuum technology
 automotive industry

Mechanical properties	parameter	value	unit	norm	comment
Tensile strength	50 mm/min	65	MPa	DIN EN ISO 527-1	(1) Ensinger Standard
Modulus of elasticity (tensile test)	1 mm/min	5000	MPa	DIN EN ISO 527-1	
Elongation at break (tensile test)	50 mm/min	1,7	%	DIN EN ISO 527-1	
Flexural strength	10 mm/min	100	MPa	DIN EN ISO 178	
Modulus of elasticity (flexural test)	2 mm/min	5000	MPa	DIN EN ISO 178	
Elongation at break (flexural test)	10 mm/min	2,1	%	DIN EN ISO 178	
Compression strength	10 mm/min	210	MPa	EN ISO 604	
Compression strength	10mm/min, 10% strain	155	MPa	EN ISO 604	
Compressive strain at break	10 mm/min	30	%	EN ISO 604	
Shore hardness	Shore D	86	-	-	1)
Thermal properties	parameter	value	unit	norm	comment
Glass transition temperature		283	°C	-	1)
Thermal expansion (CLTE)	50-200°C	2.4 / -	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	2)
Thermal expansion (CLTE)	200-300°C	4.4 / -	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	3)
Electrical properties	parameter	value	unit	norm	comment
Other properties	parameter	value	unit	norm	comment
Water absorption	24 h in water, 25°C	0,3	%	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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