

TECAST® L natural - Stock Shapes (rods, plates, tubes)

Chemical Designation

PA 6 (Polyamide 6)

Colour

natural

Density

1.14 g/cm³

Fillers

oil

Main features

- excellent wear properties
- excellent strength and stiffness
- high mechanical load capacity
- very good slide and wear properties

Target Industries

- construction industry
- agricultural machinery
- gear manufacturing
- mining industry
- conveyor technology
- oil and gas industry

Mechanical properties	condition	value		test method	comment
Tensile strength	@ 73 °F	9,000	psi	ASTM D 638	(1) Data obtained from public source
Modulus of elasticity (tensile test)	@ 73 °F	350,000	psi	ASTM D 638	(2) Data obtained from public source
Tensile strength at break	@ 73 °F	10,000	psi	ASTM D 638	1)
Elongation at yield	@ 73 °F	8	%	ASTM D 638	2)
Elongation at break	@ 73 °F	25	%	ASTM D 638	
Flexural strength	@ 73 °F	12,500	psi	ASTM D 790	
Modulus of elasticity (flexural test)	@ 73 °F	350,000	psi	ASTM D 790	
Impact strength (Izod)	@ 73 °F	1.2	ft-lbs/in	ASTM D 256	
Rockwell hardness	@ 73 °F	100		ASTM D 785	

Thermal properties	condition	value		test method	comment
Melting temperature		428	°F	ASTM D 2133	(1) Data obtained from public source
Service temperature	Intermittent	330	°F	-	(2) Data obtained from public source
Service temperature	Long Term	200	°F	-	(3) Data obtained from public source
Thermal expansion (CLTE)		4.0*10 ⁻⁵	in/in/°F	ASTM D 696	1)
Specific heat		0.73	BTU/lb-F°	-	2)
Thermal conductivity		2.57	BTU-in/hr-ft ² -°F	-	3)

Electrical properties	condition	value		test method	comment
surface resistivity		1.0*10 ¹⁴	Ω/square	ASTM D 257	1) (1) Data obtained from public source
volume resistivity		1.0*10 ¹⁴	Ω*cm	ASTM D 257	2) (2) Data obtained from public source

Other properties	condition	value		test method	comment
Moisture absorption	@ 24 hrs, 73 °F	0.75	%	ASTM D 570	(1) Data obtained from public source
Flammability (UL94)		HB	%	-	1)

- Resin specification:
NONE
Shapes specification:
ASTM D5989-11 S-PA0251

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