

TECAST® T MO black - Stock Shapes

Chemical Designation

PA 6 (Polyamide 6)

Colour

black

Density

1.15 g/cm³

Fillers

molybdenum disulfide

Main features

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

Target Industries

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

Mechanical properties	condition	value	test method	comment
Modulus of elasticity (tensile test)	@ 73 °F	400,000 psi	ASTM D 638	(1) Data obtained from public source
Tensile strength	@ 73 °F	11,500 psi	ASTM D 638	(2) Data obtained from public source
Tensile strength at break	@ 73 °F	11,900 psi	ASTM D 638	1)
Elongation at yield	@ 73 °F	3.3 %	ASTM D 638	
Elongation at break	@ 73 °F	35 %	ASTM D 638	
Flexural strength	@ 73 °F	15,000 psi	ASTM D 790	
Modulus of elasticity (flexural test)	@ 73 °F	450,000 psi	ASTM D 790	
Compression strength	@ 1% strain	3,700 psi	ASTM D 695	
Compression strength	@ 10% strain	13,000 psi	ASTM D 695	
Compression modulus	@ 73 °F	370,000 psi	ASTM D 695	2)
Impact strength (Izod)	@ 73 °F	1.4 ft-lbs/in	ASTM D 256	
Rockwell hardness	@ 73 °F	118	ASTM D 785	
Thermal properties	condition	value	test method	comment
Melting temperature		428 °F	ASTM D 2133	(1) Data obtained from public source
Deflection temperature	@ 66 psi	370 °F	ASTM D 648	(2) Data obtained from public source
Deflection temperature	@ 264 psi	200 °F	ASTM D 648	(3) Data obtained from public source
Service temperature	Long Term	200 °F	-	(4) Data obtained from public source
Service temperature	Intermittent	300 °F	-	(5) Data obtained from public source
Thermal expansion (CLTE)		4.0 *10 ⁻⁵ in/in/°F	ASTM D 696	3)
Specific heat		0.68 BTU/lb-F°	-	4)
Thermal conductivity		2.29 BTU-in/hr-ft ² -°F	-	5)
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	-	2) (2) Data obtained from public source
Dielectric strength		500 V/mil	ASTM D 149	
Dielectric constant	@ 60 Hz, 73 °F, 50% RH	3.7	ASTM D 150	
Other properties	condition	value	test method	comment
Moisture absorption	@ 24 hrs, 73 °F	0.54 %	ASTM D 570	(1) Data obtained from public source
Flammability (UL94)		HB	-	1)

→ Resin specification:
NONE
Shapes specification:
ASTM D5989-11 S-PA0220

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