

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 at yield	@ 73 °F	11,000	psi	ASTM D 638	(2) Data obtained from public source
Tensile strength at break	@ 73 °F	11,900	psi	ASTM D 638	(3) Data obtained from public source
Elongation at yield	@ 73 °F	4	%	ASTM D 638	1)
Elongation at break	@ 73 °F	20	%	ASTM D 638	2)
Flexural strength	@ 73 °F	12,500	psi	ASTM D 790	
Modulus of elasticity (flexural test)	@ 73 °F	400,000	psi	ASTM D 790	
Compression modulus	@ 73 °F	406,000	psi	ASTM D 695	3)
Impact strength (Izod)	@ 73 °F	0.6	ft-lbs/in	ASTM D 256	
Rockwell hardness	@ 73 °F	115		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	@ 66 psi	370	°F	ASTM D 648	(2) Data obtained from public source
Deflection temperature @ 264 psi	@ 264 psi	200	°F	ASTM D 648	(2) Data obtained from public source
Service temperature Intermittent	Intermittent	300	°F	-	
Service temperature Long Term	Long Term	200	°F	-	
Thermal expansion (CLTE)		4.0*10 ⁻⁵	in/in/°F	ASTM D 696	
Specific heat		0.68	BTU/lb-F°	-	1)
Thermal conductivity		2.29	BTU-in/hr-ft ² -°F	-	2)
Electrical properties	condition	value		test method	comment
Specific surface resistance		1.0*10 ¹⁴	Ω/square	ASTM D 257	1) (1) Data obtained from public source
Specific volume resistance		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	1.2	%	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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