

TECAST® T MO black - Stock Shapes (rods, plates, tubes)

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	unit	test method	comment
Tensile strength	@ 73 °F	12,800	psi	ASTM D 638	(1) ASTM D732
Modulus of elasticity (tensile test)	@ 73 °F	400,000	psi	ASTM D 638	
Tensile strength at break	@ 73 °F	12,000	psi	ASTM D 638	
Elongation at yield (tensile test)	@ 73 °F	3.3	%	ASTM D 638	
Elongation at break (tensile test)	@ 73 °F	28	%	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	@ 10% strain	14,500	psi	ASTM D 695	
Compression strength	@ 1% strain	4,600	psi	ASTM D 695	
Compression modulus	@ 73 °F	450,000	psi	ASTM D 695	
Impact strength (Izod)	@ 73 °F	0.7	ft-lbs/in	ASTM D 256	
Rockwell hardness	@73 F, R scale	118		ASTM D 785	
Rockwell hardness	@73 F, M scale	87		ASTM D 785	
Shore hardness	D scale	82		ASTM D 2240	
Shear strength		10,700	psi	-	1)
Thermal properties	condition	value	unit	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	Intermittent	300	°F	-	(4) Data obtained from public source
Service temperature	Long Term	200	°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	unit	test method	comment
surface resistivity		1.0*10 ¹⁴	Ω/square	ASTM D 257	1)
volume resistivity		1.0*10 ¹⁴	Ω*cm	-	2)
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	unit	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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