

TECAMID® 66 MO grey - Stock Shapes (rods, plates, tubes)

Chemical Designation

PA 66 (Polyamide 66)

Colour

grey

Density

1.14 g/cm³

Fillers

molybdenum disulfide

Main features

- improved surface hardness
- easy to machine
- good mechanical properties
- good tensile strength

Target Industries

- conveyor technology
- heavy duty industry
- power engineering
- mining industry

Mechanical properties	condition	value	unit	test method	comment
Modulus of elasticity (tensile test)	@ 73 °F	500,000	psi	ASTM D 638	(1) Data obtained from public source
Tensile strength at yield	@ 73 °F	12,000	psi	ASTM D 638	(2) Data obtained from public source
Tensile strength at break	@ 73 °F	12,200	psi	ASTM D 638	(3) Data from public source
Elongation at yield (tensile test)	@ 73 °F	5	%	ASTM D 638	1)
Elongation at break (tensile test)	@ 73 °F	20	%	ASTM D 638	2)
Flexural strength	@ 73 °F	19,000	psi	ASTM D 790	
Modulus of elasticity (flexural test)	@ 73 °F	550,000	psi	ASTM D 790	
Compression strength	@ 1 % strain	1200	psi	ASTM D 695	
Compression strength	@ 10% strain	14000	psi	ASTM D 695	
Compression modulus		292000	psi	ASTM D 695	
Impact strength (Izod)	@ 73 °F	1.1	ft-lbs/in	ASTM D 256	
Rockwell hardness	M Scale (R Scale)	84 (119)		ASTM D 785	
Wear rate	Against Steel, 40 psi, 50 fpm	1.9*10 ⁻⁸	in ³ -min/ft-lbs-hr	ASTM D 3702	3)
Thermal properties	condition	value	unit	test method	comment
Melting temperature		491	°F	-	(1) Data from public source
Deflection temperature	@ 66 psi	470	°F	ASTM D 648	(2) Data from public source
Deflection temperature	@ 264 psi	194	°F	ASTM D 648	(3) injection molded samples
Service temperature	Intermittent	355	°F	-	(4) Data from public source
Service temperature	Long Term	230	°F	-	
Thermal expansion (CLTE)		4.0*10 ⁻⁵	in/in/°F	ASTM D 696	3)
Specific heat		0.4	BTU/lb-F°	-	4)
Electrical properties	condition	value	unit	test method	comment
surface resistivity		1.0*10 ¹⁴	Ω/square	ASTM D 257	1)
volume resistance		10 ¹⁵	Ω*cm	ASTM D 257	2)
Dielectric strength		300	V/mil	ASTM D 149	3)
Dielectric constant	@ 60 Hz, 73 °F, 50% RH	2.5		ASTM D 150	4)
Other properties	condition	value	unit	test method	comment
Moisture absorption	@ 24 hrs, 73 °F	0.40	%	ASTM D 570	
Moisture absorption	@ saturation, 73 °F	7.5 - 8.5	%	ASTM D 570	
Flammability (UL94)		HB		-	

→ Resin specification:
ASTM D6779-11 PA0110L01A00000 and ASTM D4066-01a (Reapproved 2008) PA0110L01A00000
Shapes specification:
ASTM D5989-11 S-PA0121

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