

TECAMID® 66 MO - Stock Shapes

Chemical Designation

PA 66 (Polyamide 66)

Colour

black

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	test method	comment
Modulus of elasticity (tensile test)	@ 73 °F	550,000 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	1)
Elongation at yield	@ 73 °F	5 %	ASTM D 638	2)
Elongation at break	@ 73 °F	20 %	ASTM D 638	
Flexural strength	@ 73 °F	17,000 psi	ASTM D 790	
Modulus of elasticity (flexural test)	@ 73 °F	500,000 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	1.2 ft-lbs/in	ASTM D 256	
Rockwell hardness	M Scale	87	ASTM D 785	
Wear rate	Against Steel, 40 psi, 50 fpm	1.9*10 ⁻⁸ in ³ -min/ft-lbs-hr	ASTM D 3702	
Thermal properties	condition	value	test method	comment
Melting temperature		491 °F	-	(1) injection molded samples
Deflection temperature	@ 66 psi	470 °F	ASTM D 648	
Deflection temperature	@264 psi	194 °F	ASTM D 648	
Service temperature	Intermittent	355 °F	-	
Service temperature	Long Term	230 °F	-	
Thermal expansion (CLTE)		4.0*10 ⁻⁵ in/in/°F	ASTM D 696	1)
Specific heat		0.4 BTU/lb-F°	-	
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
Volume resistivity		10 ¹⁵	ASTM D 257	
Dielectric strength		30 V/mil	ASTM D 149	
Dielectric constant	@ 60 Hz, 73 °F, 50% RH	2.5	ASTM D 150	
Other properties	condition	value	test method	comment
Moisture absorption	@ 24 hrs, 73 °F	1.2 - 2.5 %	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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