

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	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	1) (3) Data from public source
Elongation at yield (tensile test)	@ 73 °F	5 %	ASTM D 638	2)
Elongation at break (tensile test)	@ 73 °F	20 %	ASTM D 638	
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	test method	comment
Melting temperature		491 °F	-	(1) Data from public source
Deflection temperature	@ 66 psi	470 °F	ASTM D 648	1) (2) Data from public source
Deflection temperature	@264 psi	194 °F	ASTM D 648	2) (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	test method	comment
surface resistivity		1.0*10 ¹⁴ Ω/square	ASTM D 257	1) (1) Data obtained from public source
volume resistance		10 ¹⁵	ASTM D 257	2) (2) Data from public source
Dielectric strength		300 V/mil	ASTM D 149	3) (3) Data from public source
Dielectric constant	@ 60 Hz, 73 °F, 50% RH	2.5	ASTM D 150	4) (4) Data from public source
Other properties	condition	value	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

This information reflects the current state of our knowledge and is intended only to assist and advise. It is given without obligation or liability. It does not assure or guarantee chemical resistance, quality of products or their suitability in any legally binding way. Values are not minimum or maximum values, but guidelines that can be used for comparative purposes in material selection. They are within the normal range of product properties and do not represent guaranteed property values. Testing under individual application circumstances is always recommended. Data is obtained from extruded shapes material unless otherwise noted. References to FDA compliance refer to the resins from which the products were made unless otherwise noted. All trade and patent rights should be observed. All rights reserved. Data sheet values are subject to periodic review, the most recent update can be found at www.ensingerplastics.com.