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

Chemical Designation
PA 66 (Polyamide 66)

Colour
grey

Density
1.14 g/cm^3

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 (2) Data obtained from public source (3) Data from public source
Tensile strength at yield	@ 73 °F	12,000	psi	ASTM D 638		
Tensile strength at break	@ 73 °F	12,200	psi	ASTM D 638	1)	
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}	in³-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 (2) Data from public source (3) injection molded samples (4) Data from public source
Deflection temperature	@ 66 psi	470	°F	ASTM D 648	1)	
Deflection temperature	@264 psi	194	°F	ASTM D 648	2)	
Service temperature	Intermittent	355	°F	-		
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)	(1) Data obtained from public source (2) Data from public source (3) Data from public source (4) Data from public source
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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Date: 2018/06/14

Version: A1