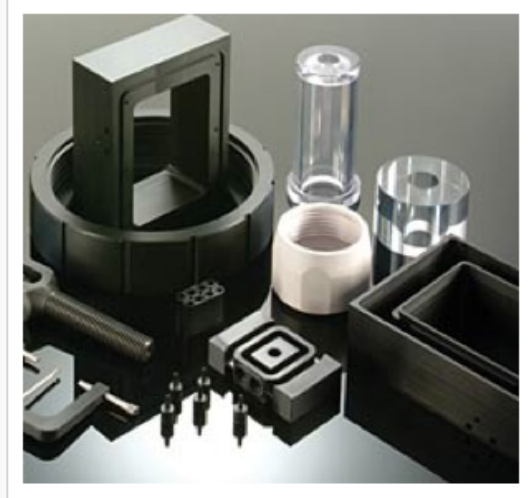


TECAMID 66 MO - Molybdenum Disulfide filled

Nylon is one of the most widely used and versatile thermoplastic resins. Its combination of physical properties versus its price makes it a favorite choice for numerous applications. Nylon has a consistent history of replacing other materials including: metal, brass, bronze, aluminum, and rubber. In replacing metal gears in machinery, nylon can be advantageous because of its ability to reduce noise, use less lubrication and increase gear life. TECAMID® MDS is an extruded "moly" filled nylon 6/6, which is gray in color. The addition of particles of molybdenum disulfide enhances the surface lubricity and wear resistance over unfilled nylon. In applications requiring high lubricity, this material may be a good candidate. In addition to the greater lubricity there are many additional property enhancements that occur.



- **Low surface friction**
- **Increased surface hardness**
- **Increased heat resistance**
- **Higher tensile properties**
- **Improved dimensional stability**

TECAMID® MDS has enhanced properties which make it an ideal material to replace metals in machinery. It can increase the life of many moving parts as well as provide a noise reduction benefit and requires less lubrication. A very stable compound with many industrial applications.

	Properties	Condition	Value		Test Method	Comment
Mechanical	Modulus of elasticity (tensile test)	@ 73°F	550,000	psi	ASTM D 638	
	Tensile strength at yield	@ 73°F	12,000	psi	ASTM D 638	
	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	%	ASTM D 695	
	Compression strength	@ 10% strain	14000	%	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	

TECAMID 66 MO - Molybdenum Disulfide filled

properties continued from page 1

Thermal	Melting temperature		491	°F	-	
	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)	1) Injection molded samples
	Specific heat		0.4	BTU/lb-F	-	
Electrical	Volume resistivity		10 ¹⁵		ASTM D 257	
	Dissipation strength		30	V/mil	ASTM D 149	
	Dielectric constant	@ 60 Hz, 73 °F, 50% RH	2.5		ASTM D 150	
Other	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		-	

This information is only to assist and advise you on current technical knowledge and is given without obligation or liability. All trade and patent rights should be observed. All rights reserved. Data obtained from extruded shapes material.

TECAMID™ - Ensinger Industries, Inc.

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