

EXTRUDED NYLON 6/6 - MoS² Filled

KEY FEATURES

- Low Surface Friction
- Increased Surface Hardness
- Increased Heat Resistance
- Higher Tensile Properties
- Improved Dimensional Stability

DESCRIPTION

Molybdenum Disulphide (MoS²) filled extruded nylon 6/6 offers improved strength and rigidity. With a lower coefficient of linear thermal expansion than unfilled extruded nylon, parts maintain better fit and clearances, and have less tendency to seize as bearings.

TYPICAL PROPERTY VALUES

	Properties	Condition	Units	Value	ASTM Test
Physical	Chemical Designation				
	Filler				
	Density		g/cm ³	1.16	D792
Mechanical	Tensile Modulus	@ 73 °F	PSI	480,000	D638
	Tensile Strength	@ 73 °F	PSI	12,500	D638
	Shear Strength	@ 73 °F	PSI	10,500	D732
	Tensile Elongation @ Break	@ 73 °F	%	25	D638
	Flexural Modulus	@ 73 °F	PSI	460,000	D790
	Flexural Strength	@ 73 °F	PSI	17,000	D790
	Compressive Modulus	@ 73 °F	PSI	420,000	D790
	Compressive Strength	@ 73 °F, 10% strain	PSI	16,000	D695
	Izod (charpy) Impact Strength	@ 73 °F	ft-lbs/in	0.5	D256
	Rockwell Hardness	@ 73 °F	M (R) Scale	85	D785
	Limiting PV		ft. lbs./in ² min	3,000	QTM 55007
	Coefficient of Friction	Dynamic		0.2	QTM 55007

TYPICAL PROPERTY VALUES

	Properties	Condition	Units	Value	ASTM Test
Thermal	Vicat Softening Point				
	Melting Temperature		°F	500	D3418
	Heat Deflection Temperature	@ 66	°F		
	Heat Deflection Temperature	@ 264	°F	200	D648
	Thermal Conductivity		BTU in./hr/ft ³ °F	1.7	F433
	Service Temperature	Long Term	°F	220	
	Thermal Expansion (CLTE)	-40°F to 300°F	in/in/°F	4.0*10 ⁻⁵	E-831
Electrical	Dielectric Strength		v/mil	350	D149
	Surface Resistivity		ohm/square	>10 ¹³	EOS/ESD S11.11
	Dielectric Constant	@10 ⁶ Hz			D150
	Dissipation Factor	@10 ⁶ Hz			D150
Other	Moisture Absorption	@ 24 hours	%	0.30	D570
	Moisture Absorption	@ Saturation	%	7	D570
	FDA Compliant			No	
	Flammability			V-2	UL 94
	Relative Cost			\$	

*The data stated above are typical values intended for reference and comparison purposes only.

*The data should not be used as a basis for design specifications or quality control.

*The information is provided as a guide to the best of our knowledge and given without obligation or liability.

*Testing under individual application circumstances is recommended.