

EXTRUDED NYLON 6/6 - 30% Glass Filled

KEY FEATURES

- High Heat Deflection Temperature
- Superior Organic Chemical Resistance
- Excellent Wear Resistance
- Very Good Fatigue Endurance
- Superior Creep Resistance

DESCRIPTION

The important properties of 30% glass-filled Extruded Nylon 6/6 material include high tensile and flexural strength, stiffness, excellent heat deflection temperature, and superior abrasion and wear resistance. While all Extruded Nylon materials have high mechanical strength and superior resistance to wear and organic chemicals, the glass filled variation has more than double the strength and stiffness of unreinforced nylons and a heat deflection temperature which approaches its melting point.

TYPICAL PROPERTY VALUES

		Properties	Condition	Units	Value	ASTM Test	
Physical	Chemical Designation						
	Filler						
	Density			g/cm ³	1.29	D792	
Mechanical	Tensile Modulus		@ 73 °F	PSI	675,000	D638	
	Tensile Strength		@ 73 °F	PSI	13,500	D638	
	Shear Strength		@ 73 °F	PSI			
	Tensile Elongation @ Break		@ 73 °F	%	5	D638	
	Flexural Modulus		@ 73 °F	PSI	650,000	D790	
	Flexural Strength		@ 73 °F	PSI	21,000	D790	
	Compressive Modulus		@ 73 °F	PSI	600,000	D790	
	Compressive Strength		@ 73 °F, 10% strain	PSI	18,000	D695	
	Izod (charpy) Impact Strength		@ 73 °F		ft-lbs/in		
	Rockwell Hardness		@ 73 °F		M (R) Scale	75	D785
	Limiting PV				ft. lbs./in ² min		
	Coefficient of Friction		Dynamic				

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	2.0*10 ⁻⁵	E-831
Electrical	Dielectric Strength		v/mil	350	D149
	Surface Resistivity		ohm/square		
	Dielectric Constant	@10 ⁶ Hz			
	Dissipation Factor	@10 ⁶ Hz			
Other	Moisture Absorption	@ 24 hours	%	0.30	D570
	Moisture Absorption	@ Saturation	%	5.5	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.