

# Extruded Nylon 6/6

## 30% Glass Filled

### KEY FEATURES

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

Physical	Properties	Condition	Units	Value	ASTM Test
	Density		g/cm <sup>3</sup>	1.29	D792
	Chemical Designation			PA66	
	Filler			Glass Fiber	

Mechanical	Properties	Condition	Units	Value	ASTM Test
	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
	Compressive Strength	@ 73 °F, 10% strain	PSI	18,000	D695
	Flexural Modulus	@ 73 °F	PSI	650,000	D790
	Flexural Strength	@ 73 °F	PSI	21,000	D790
	Compressive Modulus	@ 73 °F	PSI	600,000	D790
	Izod (Charpy) Impact Strength	@ 73 °F	ft-lbs/in		
	Rockwell Hardness	@ 73 °F	M (R) Scale	75	D785
	Limiting PV		ft. lbs./in <sup>2</sup> min		
Coefficient of Friction	Dynamic				

Thermal	Properties	Condition	Units	Value	ASTM Test
	Heat Deflection Temperature	@ 66 PSI	°F		
	Heat Deflection Temperature	@ 264 PSI	°F	200	D648
	Thermal Conductivity		BTU-in/hr-ft <sup>3</sup> -°F	1.7	F433
	Service Temperature	Long Term	°F	220	
Thermal Expansion (CLTE)	-40°F to 300°F	in/in/°F	2.0*10 <sup>-5</sup>	E-831	

Electrical	Properties	Condition	Units	Value	ASTM Test
	Dielectric Strength		V/mil	350	D149
	Surface Resistivity		ohms/square	>10 <sup>13</sup>	ANSI/ESD STM 11.11
	Dielectric Constant	@10 <sup>5</sup> Hz			
Dissipation Factor	@10 <sup>6</sup> Hz				

Other	Properties	Condition	Units	Value	ASTM Test
	Moisture Absorption	@ 24 hrs	%	0.30	D570
	Moisture Absorption	@ Saturation	%	5.5	D570
	Flammability			V-2	UL 94
	FDA Compliant			No	
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