



MANUFACTURING CORPORATION

- Plastics Machining
- Spring Energized Seals
- Rotary Lip Seals

Material Data Sheet

Material: Tecamid® 6/6 GF30

Nylon

Tecamid® 6/6 GF30 is a 30% glass-fiber reinforced nylon 6/6 material whose important properties include high tensile and flexural strength, stiffness, excellent heat deflection temperature, and superior abrasion and rear resistance. While all Tecamid™ materials have high mechanical strength and superior resistance to wear and organic chemicals, Tecamid® 6/6 GF30 has more than double the strength and stiffness of unreinforced nylons and a heat deflection temperature which approaches its melting point.

Mechanical Properties	ASTM Test Method	Value	Units
Density	D792	0.0488	lbs/in ³
Specific Gravity	D792	1.35	g/cc
Water Absorption @ 24 hours, 73°F	D570	0.7	%
@ Saturation, 73°F	D570	5.4	%
Tensile Strength, 73°F	D638	12,000	psi
Tensile Modulus	D639	400,000	psi
Elongation (at break), 73°F	D638	10	%
Flexural Strength, 73°F	D790	18,500	psi
Flexural Modulus of Elasticity, 73°F	D790	550,000	psi
Compressive Strength	D695		psi
Izod Impact Strength, 73°F	D256	1	ft-lb/in of notch
Rockwell Hardness, 73°F	D785	90	M or R Scale
Shure Hardness			D Scale
Wear Factor Against Steel, 40 psi, 50 fpm	D3702		in. ³ -min/ft.lbs.hr
Static Coefficient of Friction	D3702		
Dynamic Coefficient of Friction, 40 pcs, 50 fpm	D3702		
Thermal Properties			
Heat Deflection Temperature @ 66 psi	D648	490	°F
@ 264 psi	D648	482	°F
Coefficient of Linear Thermal Expansion	D696	1.2 X 10 ⁻⁵	in/in./°F
Continuous Servicing Temperature, Intermittent		465	°F
Long Term	UL746B	230	°F
Specific Heat			BTU/lb -°F
Thermal Conductivity			
Melting Point	D2133	491	°F
Flammability	UL94		(mm)
Electrical Properties			
Surface Resistivity	D257		ohm/square
Volume Resistivity	D257		ohm - cm
Dielectric Strength	D149		Volts/mil
Dielectric Constant, 60 Hz, 73°F, 50% RH	D150		
Dissipation Factor, 60 HZ, 73°F	D150		

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*The values shown in these and the following charts are typical, average properties. Actual values may differ due to variations in resin formulations and processing methods. These values are obtained from sources believed to be reliable, including the resin manufactures, converters and other published sources. However, they should not be used for specification or design purposes. The above information is provided by Ensinger Hyde.