



MANUFACTURING CORPORATION

- Plastics Machining
- Spring Energized Seals
- Rotary Lip Seals

Material Data Sheet

Material: Tecanat™ GF20

Polycarbonate

Tecanat™ GF20 is a 20% glass reinforced polycarbonate with higher temperature and tensile properties than the unfilled Tecanat™. Polycarbonate is an amorphous thermoplastic with good electrical properties combined with exceptional strength and moderate chemical resistance.

Mechanical Properties	ASTM Test Method	Value	Units
Density	D792	.0048	lbs/in ³
Specific Gravity	D792	1.33	g/cc
Water Absorption @ 24 hours, 73°F	D570	0.16	%
@ Saturation, 73°F	D570	0.29	%
Tensile Strength, 73°F	D638	16,000	psi
Tensile Modulus	D639	860,000	psi
Elongation (at break), 73°F	D638	5	%
Flexural Strength, 73°F	D790	19,000	psi
Flexural Modulus of Elasticity, 73°F	D790	798,000	psi
Compressive Strength	D695		psi
Izod Impact Strength, 73°F	D256	2.06	ft-lb/in of notch
Rockwell Hardness, 73°F	D785		M or R Scale
Shure Hardness			D Scale
Wear Factor Against Steel, 40 psi, 50 fpm	D3702	120 X 10 ⁻¹⁰	in. ³ -min/ft.lbs.hr
Static Coefficient of Friction	D3702		
Dynamic Coefficient of Friction, 40 pcs, 50 fpm	D3702	.22	
Thermal Properties			
Heat Deflection Temperature @ 66 psi	D648	298	°F
@ 264 psi	D648	295	°F
Coefficient of Linear Thermal Expansion	D696	1.5 X 10 ⁻⁵	in/in./°F
Continuous Servicing Temperature, Intermittent		275	°F
Long Term	UL746B	266	°F
Specific Heat			BTU/lb -°F
Thermal Conductivity			
Melting Point	D2133		°F
Flammability	UL94	HB	(mm)
Electrical Properties			
Surface Resistivity	D257		ohm/square
Volume Resistivity	D257	1.0 x 10 ¹⁷	ohm - cm
Dielectric Strength	D149	380	Volts/mil
Dielectric Constant, 60 Hz, 73°F, 50% RH	D150	3.2	
Dissipation Factor, 60 HZ, 73°F	D150	0.0009	

237 Glider Circle, Corona, CA 92880 Phone: (951) 272-9395 Fax: (951) 272-9397

*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 manufacturers, converters and other published sources. However, they should not be used for specification or design purposes. Above information is provided by Ensinger Hyde.