

25% Carbon Filled PTFE Properties Test Data Sheet

Technical Data	Unit	25% Carbon Filled
Physical Properties		
Density	g/cm ³	2.3
Water absorption	%	0.01
Mechanical Properties		
Tensile strength at yield	psi	1800
Tensile strength at break	%	65
Flexural Strength	psi	1175
Fluxural Modulus of Elasticity	psi	160,000
Compressive Strength 10% Deformation	psi	1,700
Deformation Under Load	%	4
Compressive Modulus of Elasticity	psi	870000
Hardness, Durometer "D" Scale		D65
Izod Impact, Notched	ft-lb/in of notch	1.9
Coefficient of Friction (Dry vs. Steel) Dynamic		0.11
Maximum Static Bearing Load (P)	psi	1000
Maximum Unlubricated No Load Bearing Velocity (V)	ft/minute	400
Maximum Limiting PV (Unlubricated)	psi x ft/min	10000
Thermal Properties		
Embrittlement Temperature	°C	-200
Max. service temperature - Short term	°C	260
Max. service temperature - Long term	°C	260
Thermal Conductivity	BTU-in/(hr/ft ² °F)	4.5
CTE // to Laminates	in/in/ °F x 10 ⁻⁵	7.2
CTE I to Laminates	in/in/ °F x 10 ⁻⁵	8
Melting Point (Crystalline Peak)	°C	327
Electrical Properties		
Embrittlement Temperature	BTU-in/(hr/ft ² F)	4.5
Volume Resistivity(Ω)		N/A
Surface Resistivity(Ω)		N/A
Miscellaneous Data		
Flammability	Class	V-0
NOTE: 1 g/cm ³ = 1,000 kg/m ³ , 1 Mpa = 1 N/mm ² , 1kV/mm = 1 MV/m		

Statement:

NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. ENERGETIC will not provide any legally binding guarantee of certain properties, or any suitability.