

Polystyrene Specs

		Units	ASTM Test Method	Hi-Impact Polystyrene Extruded Polystyrene
MECHANICAL	Strength to Weight Ratio	ksi		3.8
	Specific Gravity @73 F		D792	1.04
	Tensile Strength @73 F, (ult)(yld)	psi	D638	4000 (ult)
	Tensile Modulus of Elasticity @ 73 F	psi	D638	
	Tensile Elongation at Break @ 73 F	%	D638	50
	Flexural Strength @ 73 F	psi	D790	
	Flexural Modulus of Elasticity @ 73 F	psi	D790	260000
	Shear Strength @ 73 F	psi	D732	
	Compressive Strength, (% Deformation) @73 F	psi	D695	
	Compressive Modulus of Elasticity @73 F	psi	D695	
	Hardness, Rockwell, Scale as noted @73 F		D785	(L56)
	Hardness, Durometer, Shore D @73 F		D2240	
	Izod Impact, (Notched) @73 F	ft-lb/in of notch	D256 TypeA	
	Coefficient of Friction, (Dry vs. Steel) Dynamic			
Limiting PV, (with 4 to 1 factor of safety applied)	psi-ft/min			
THERMAL	Coefficient of Linear Thermal Expansion @73 F	in/in/F	E-831 (TMA)	
	Heat Deflection Temperature @ 264 psi	F	D648	183
	Tg-Glass transition temperature, (Amorphous)	F	D3418	
	Melting Point, (VS=Vicat Softening Temp.)	F	D3418	
	Continuous Service Temperature in Air, (Max.)	F		
	Thermal Conductivity	BTU-in/hr-ft ² -F		
ELECTRICAL	Dielectric Strength, Short Term	Volts/mil	D149	
	Volume Resistivity	ohm-cm	D257	
	Dielectric Constant @ 10E6 Hz		D150	
	Dissipation Factor @ 10E6 Hz		D150	
	Flammability @ 3.1 mm unless noted		UL94	
H₂O	Water Absorbtion, Immersion, 24 Hrs	% by wt.	D570(7)	
	Water Absorbtion, Saturation	% by wt.	D570(7)	