

# PET



**PSR Plastics**  
Components to Industry

## Properties

Properties	Item	Method ASTM	Unit	PET	
	Color	-	-	white	
	Density	D792	lbs/in <sup>3</sup>	0.051	
	Water absorption				
		after 24/96h immersion in water of 73°F	D570	mg	-/-
			D570	%	-/-
		at saturation in air of 73°F, 50%RH	D570	%	-
		at saturation in water of 73°F	D570	%	-
Thermal Properties	Melting Temperature	D2133	°F	490	
	Thermal conductivity at 73°F	C177	Btu-in/ft <sup>2</sup> -h-°F	-	
	Coefficient of linear thermal expansion				
		average value btw 73~140°F	D696	in/in/°F	-
		average value btw 73~212°F	D696	in/in/°F	33 · 10 <sup>-6</sup>
	Temperature of Deflection under load	method A : 264psi	D648	°F	155
	Max. allowable service temp. in air :				
		for short periods	-	°F	320
		continuously : 5,000/20,000h	-	°F	-/-
		Min. service temperature	-	°F	-
	Flammability	UL94 (3/6mm thickness)	-	-	-/-
Mechanical Properties at 73°F	Tension test				
		tensile stress	D638	psi	11,600
		tensile strain at break	D638	%	20
		tensile modulus of elasticity	D638	psi	464,000
	Compression test	compressive stress at 10% nominal strain	D695	psi	-
	Izod impact strength-Notched		D256	ft-lbs/in	-
	Rockwell hardness		D785	-	R120
Electrical Properties at 73°F	Electric strength		D149	V/mil	-
	Volume resistivity		D257	Ω-cm	-
	Surface resistivity		D257	Ω	-

This table is a valuable help in the choice of a material. The data listed here fall within the normal range of product properties. However, they are not guaranteed and they should not be used to establish material specification limits nor used alone as the basis of design.