

# PROPERTIES PEI

## Legend

★ : values referring to dry material

★★ : values referring to material in equilibrium with the standad atmosphere 23°C/50% RH(mostly derived from literature)

► This table is a valuable help in the choice of a material. The data listed here fall with in 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

PROPERTIES	ITEM		Method	Unit	PEI		
			ISO/(IEC)				
	Color		-	-	Amber translucent		
	Density		1183	g/cm <sup>3</sup>	1.27		
	Water absorption	After 24/96h immersion in water of 23°C At saturation air 23°C, 50%RH At saturation in water of 23°C	62	mg	20/41		
			62	%	0.26/0.54		
			-	%	0.75		
-			%	1.35			
Thermal Properties	Melting Temperature		-	°C	-		
	Thermal conductivity at 23°C		-	W/(K·m)	0.22		
	Coefficient of inear Thermal expansion	Average value btw23~60°C	-	m/(m ·K)	45 · 10 <sup>-6</sup>		
		Average value btw23~100°C	-	m/(m ·K)	45 · 10 <sup>-6</sup>		
	Temperature of Deflection under load	Method A : 1.8Mpa ★	75	°C	190		
	Max. allowable Service temp. in air	For short periods Continously : 5,000/20,000h	-	°C	200		
			-	°C	170		
	Min.service temperature		-	°C	-		
Flammability		UL94 (3/6mm thickness)	-	-	V-0/V-0		
Mechanical Properties at 23°C	Tension test	Tensile stress ★	527	MPa	105/-		
		★★	527	MPa	-		
		Tensile strainat break ★	527	%	10		
		★★	527	%	-		
		Tensile modulus of elasticity ★	527	Mpa	3400		
		★★	527	MPa	-		
	Compression test	Compressive stress at 1/2/5/% nominal strain ★	604	MPa	25/49/-		
	Izod impact strength-Notched		★	180/2A	kg·cm/cm	-	
			★★	180/2A	kg·cm/cm	-	
	Rockwell hardness		★	2039-2	-	R126	
Electrical Properties at 23°C	Electric strength		★	(60243)	KV/mm	27	
			★★	(60243)	KV/mm	-	
	Volume resistivity		★	(60093)	Ω·cm	>10 <sup>14</sup>	
			★★	(60093)	Ω·cm	-	
	Surface resistivity		★	(60093)	Ω	>10 <sup>13</sup>	
			★★	(60093)	Ω	-	
	Relative permittivity:	100Hz	★	(60250)	-	3.0	
			★★	(60250)	-	-	
		1MHz	★	(60250)	-	3.0	
			★★	(60250)	-	-	
		Dielectric dissipation factor:	100Hz	★	(60250)	-	0.002
				★★	(60250)	-	-
1MHz	★		(60250)	-	0.002		
	★★		(60250)	-	-		
Comparative tracking index(CTI)		★	(60112)	-	175		
		★★	(60112)	-	-		