



# PEI 系列複合材料物性表

## compound datasheets

項目 Property		試驗法 ASTM Method	單位 Units	PEI, GF10	PEI, GF20	PEI, GF30	PEI, CF10	PEI, CF20	PEI, CF30	
一般性質	比重 Specific Gravity	D792	-	1.34	1.41	1.5	1.31	1.35	1.39	
	成型收縮率 Mold Shrinkage	6.35mm截面	D955	%	-	-	-	-	-	
		3.18mm截面			0.6	0.3	0.2	0.2	0.05	0.05
吸水率(24 hours) Water absorption, 24 hrs @ 23°C		D570	%	0.24	0.21	0.18	0.2	0.2	0.18	
機械性質	衝擊強度 Impact Strength	3.18mm截面(缺口) Notched Izod	D256	J/m	53	69	85	48	59	64
		3.18mm截面(無缺口) Unnotched Izod			587	614	683	507	481	507
	伸張強度 Tensile Strength		D638	MPa	128	159	173	157	195	214
	延伸率 Tensile Elongation		D638	%	4.5	3.5	2.6	3	1.8	1.5
	伸張模數 Tensile Modulus		D638	MPa	5171	7584	10687	8619	16203	20685
	彈性強度 Flexural Strength		D790	MPa	183	224	246	231	269	296
	彈性模數 Flexural Modulus		D790	MPa	4826	6895	9998	7584	13100	17927
洛氏硬度 Rockwell Hardness		D785	-	-	122 R	123 R	-	-	-	
熱性質	熱變形溫度 DTUL	at 264 psi ( 1.82 MPa)	D648	°C	207	207	207	207	207	207
		at 66 psi (0.455 MPa)			210	210	210	210	210	210
	連續使用溫度 Continuous Use Temp.		UL-746B	°C	-	-	-	-	-	-
	線性熱膨脹係數 Coefficient of Linear Thermal Expansion		D 696	10 <sup>-5</sup> /°C	3.4	2.7	2.2	-	-	-
防火等級 Flammability thickness		-	-	*V-0 @ 1.5 mm	*V-0 @ 1.5 mm	*V-0 @ 1.5 mm	*V-0 @ 1.5 mm	*V-0 @ 1.5 mm	*V-0 @ 1.5 mm	
電氣性質	體積固有電阻 Volume Resistivity		D257	ohm-cm	>1e12	>1e12	>1e12	<1e9	<1e4	<1e3
	表面電阻 Surface Resistivity		D257	ohm/SQ	-	-	-	-	-	-
	靜電消散(MIL-PRF-81705C) Static Decay		FTMS-4046.1	sec	-	-	-	-	-	-

\*Tested by factory.

Data are obtained from specimens molded under carefully controlled conditions from representative samples of the compound described herein. Properties may be materially affected by molding techniques applied and by the size and shape of the item molded. No assurance can be implied that all molded articles will have the same properties as those listed.