



# PES 系列複合材料物性表

## compound datasheets

項目 Property		試驗法 ASTM Method	單位 Units	PES, GF10	PES, GF20	PES, GF30	PES, CF10	PES, CF20	PES, CF30	
一般性質	比重 Specific Gravity	D792	-	1.44	1.51	1.59	1.39	1.44	1.45	
	成型收縮率 Mold Shrinkage	6.35mm截面	D955	%	-	-	-	-	-	
		3.18mm截面			0.5	0.4	0.2	0.2	0.2	0.1
吸水率(24 hours) Water absorption, 24 hrs @ 23°C	D570	%	-	0.4	0.35	0.35	-	-		
機械性質	衝擊強度 Impact Strength	3.18mm截面(缺口) Notched Izod	D256	J/m	43	75	96	69	64	85
		3.18mm截面(無缺口) Unnotched Izod			534	587	694	587	481	587
	伸張強度 Tensile Strength	D638	MPa	97	131	148	141	152	207	
	延伸率 Tensile Elongation	D638	%	3~5	2.9	2.3	3	1.7	1.4	
	伸張模數 Tensile Modulus	D638	MPa	4137	6895	9653	8964	15169	23443	
	彈性強度 Flexural Strength	D790	MPa	152	193	210	207	214	296	
	彈性模數 Flexural Modulus	D790	MPa	4137	6206	8274	8274	13790	19306	
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	210	216	216	210	210	210
		at 66 psi (0.455 MPa)			-	221	221	-	-	-
	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	-	-	-	
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	-	<1e5	<1e5	
	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.