



# PBT 系列複合材料物性表

## compound datasheets

項目 Property		試驗法 ASTM Method	單位 Units	PBT, GF10	PBT, GF20	PBT, GF30	PBT FR, GF10	PBT FR, GF20	PBT FR, GF30	PBT CF10	PBT CF20	
一般性質	比重 Specific Gravity	D792	-	1.38	1.45	1.53	1.5	1.56	1.63	1.34	1.37	
	成型收縮率 Mold Shrinkage	6.35mm截面	D955	%	-	-	-	-	-	-	-	
		3.18mm截面			0.7~1.1	0.2~0.6	0.2~0.4	0.7~0.9	0.4~0.6	0.15~0.25	0.3~0.5	0.1~0.2
吸水率(24 hours) Water absorption, 24 hrs @ 23°C	D570	%	-	-	-	0.07	0.07	0.06	-	-		
機械性質	衝擊強度 Impact Strength	3.18mm截面(缺口) Notched Izod	D256	J/m	59	75	96	32	53	80	43	59
		3.18mm截面(無缺口) Unnotched Izod			481	641	747	320	534	747	374	481
	伸張強度 Tensile Strength	D638	MPa	79	103	124	93	110	131	97	138	
	延伸率 Tensile Elongation	D638	%	2.5~4.5	3~5	2.5~3.5	4~5	3~4	2.5~3.5	2~4	1~3	
	伸張模數 Tensile Modulus	D638	MPa	4826	6895	9653	4826	8274	10342	6895	13790	
	彈性強度 Flexural Strength	D790	MPa	131	159	190	145	165	207	131	197	
	彈性模數 Flexural Modulus	D790	MPa	4137	5516	8274	4137	6895	9653	5516	12411	
洛氏硬度 Rockwell Hardness	D785	-	-	-	-	118 R	118 R	118 R	-	-		
熱性質	熱變形溫度 DTUL	at 264 psi ( 1.82 MPa)	D648	°C	171	204	213	171	191	204	-	
		at 66 psi (0.455 MPa)			-	-	-	193	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	-	-	-	-	-	-	-	-	
防火等級 Flammability thickness	-	-	-	*HB @ 1.5 mm	*HB @ 1.5 mm	*HB @ 1.5 mm	V-0 @ 0.8 mm	V-0 @ 0.8 mm	V-0 @ 0.8 mm	*HB @ 1.5 mm	*HB @ 1.5 mm	
電氣性質	體積固有電阻 Volume Resistivity	D257	ohm-cm	-	-	-	>1e16	>1e16	>1e15	-	-	
	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.