



# TPU 系列複合材料物性表

compound datasheets

項目 Property		試驗法 ASTM Method	單位 Units	TPU, Anti-static, 70 Shore A	TPU, CB, 85 Shore A	TPU, GF10, 55 Shore D	TPU, GF20, 90 Shore A	TPU, GF30, 65 Shore D	TPU, GF10, 70 Shore A	TPU, GF20, 70 Shore A	TPU, GF30, 70 Shore A	
一般性質	比重 Specific Gravity	D792	-	1.06	1.2	1.28	1.32	1.44	1.14	1.18	1.27	
	成型收縮率 Mold Shrinkage	6.35mm截面	%	-	-	-	-	-	-	-	-	
		3.18mm截面		-	1~1.5	0.3	0.1~0.2	0.05~0.2	0.1~0.3	0.1~0.3	0.1~0.3	
吸水率(24 hours) Water absorption, 24 hrs @ 23°C	D570	%	-	-	-	-	-	0.4	0.4	0.4		
機械性質	衝擊強度 Impact Strength	3.18mm截面(缺口) Notched Izod	D256	J/m	-	-	801	694	400	149	214	214
		3.18mm截面(無缺口) Unnotched Izod	-	-	No Break	961	No Break	149	214	214		
	伸張強度 Tensile Strength	D638	MPa	10	10	39	21	72	16	23	12	
	延伸率 Tensile Elongation	D638	%	>1500	400~600	65	>10	>10	80	60	50	
	伸張模數 Tensile Modulus	D638	MPa	-	-	621	552	3103	69	138	69	
	彈性強度 Flexural Strength	D790	MPa	-	-	17	14	69	3	6	5	
	彈性模數 Flexural Modulus	D790	MPa	-	-	414	414	2413	69	138	138	
洛氏硬度 Rockwell Hardness	D785	-	70A	85A, 45D	67 D	-	75 D	70 A	70A	70A		
熱性質	熱變形溫度 DTUL	at 264 psi ( 1.82 MPa)	D648	°C	-	-	-	-	-	-	-	
		at 66 psi (0.455 MPa)		-	-	-	-	-	-	-		
	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	*HB @ 1.5 mm		
電氣性質	體積固有電阻 Volume Resistivity	D257	ohm-cm	1e9~9.9e10	<1e3	-	-	-	-	-	-	
	表面電阻 Surface Resistivity	D257	ohm/SQ	1e10~9.9e11	<1e6	-	-	-	-	-	-	
	靜電消散(MIL-PRF-81705C) Static Decay	FTMS-4046.1	sec	<2	<2	-	-	-	-	-	-	

\* 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.