



PC 系列複合材料物性表

compound datasheets

項目 Property		試驗法 ASTM Method	單位 Units	PC, AR15, PTFE15	PC, PTFE10	PC, PTFE20	PC, GF10, PTFE10	PC, GF15, PTFE15	PC, GF20, PTFE20	PC, GF30, PTFE15	PC, PTFE15, Si	
一般性質	比重 Specific Gravity	D792	-	1.31	1.25	1.31	1.32	1.42	1.49	1.55	1.28	
	成型收縮率 Mold Shrinkage	6.35mm截面	D955	%	-	-	-	-	-	-	0.8	
		3.18mm截面			0.3~0.6	0.5~1	0.5~1	0.3~0.6	0.15~0.35	0.15~0.4	0.1~0.3	0.6
吸水率(24 hours) Water absorption, 24 hrs @ 23°C	D570	%	-	-	-	-	0.08	-	-	-	0.1	
機械性質	衝擊強度 Impact Strength	3.18mm截面(缺口) Notched Izod	D256	J/m	64	187	214	187	112	160	192	214
		3.18mm截面(無缺口) Unnotched Izod			534	1869	No Break	1602	534	774	801	1869
	伸張強度 Tensile Strength	D638	MPa	66	55	48	52	81	97	114	47	
	延伸率 Tensile Elongation	D638	%	4~8	>10	>10	8~10	2.5~3.5	2~4	2~3.5	8.5	
	伸張模數 Tensile Modulus	D638	MPa	3448	2413	2137	4137	5516	6206	8964	1929	
	彈性強度 Flexural Strength	D790	MPa	100	79	76	86	124	152	179	79	
	彈性模數 Flexural Modulus	D790	MPa	3103	2275	2206	3448	4826	5861	8619	2067	
洛氏硬度 Rockwell Hardness	D785	-	-	-	-	-	-	-	-	-	116 R	
熱性質	熱變形溫度 DTUL	at 264 psi (1.82 MPa)	D648	°C	135	129	129	138	138	149	146	135
		at 66 psi (0.455 MPa)			-	-	-	-	143	-	-	138
	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 ⁻⁵ /°C	-	-	-	-	-	-	-	-	6.84
防火等級 Flammability thickness	-	-	-	*HB @ 1.5 mm	*HB @ 1.5 mm	*HB @ 1.5 mm	*HB @ 1.5 mm	*V-1 @ 3 mm	*V-1 @ 3 mm	*HB @ 1.5 mm	*V-0 @ 3.18 mm	
電氣性質	體積固有電阻 Volume Resistivity	D257	ohm-cm	1e14~1e16	1e14~1e16	1e14~1e16	1e14~1e16	-	1e14~1e16	-	10e16	
	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.