

GATONE™ Poly Ether Ether Ketone 物性表 — Datasheets 1

項目 Property	試驗法 ASTM Method	單位 Units	Poly Ether Ether Ketone					
			5300	5400	5600	5700	5330GF	
一般性質	比重 Specific Gravity	D792	-	1.3	1.3	1.3	1.3	1.5
	吸水率(24 hours) Water Absorption	D570	%	0.1	0.1	0.1	0.1	0.08
	熔融流速(380°C/5KG/6') Melt Volume Rate	D1238	cc / 10min	3~5	10~15	25~30	35-70	-
	成型收縮率-流動向,3.18mm 截面 Mold Shrinkage-flow direction	D955	%	1.00	0.90	0.80	0.80	0.30
	成型收縮率-垂直向,3.18mm 截面 Mold Shrinkage-vertical to flow	D955	%	1.38	1.30	1.20	1.20	-
	填充含量 Filler content	-	%	0	0	0	0	30
機械性質	伸張強度 Tensile Strength	D638	MPa	95	95	90	91	160
	伸張模數 Tensile Modulus	D638	MPa	3800	3800	3500	3800	10000
	伸延斷裂 Tensile Elongation at Break	D638	%	>50	>50	>30	5	2.5
	彈性強度 Flexural Strength	D790	MPa	160	160	145	145	260
	彈性模數 Flexural Modulus	D790	MPa	3800	3800	3500	3600	10000
	洛氏硬度 Rockwell Hardness	D785	M scale	100	100	98	100	102
	衝擊強度(缺口) Impact Strength-Notched Izod	D256	J/m	60	60	50	44	95
熱性質	熱變形溫度 DTUL at 264 psi (1.82 MPa)	D648	°C	150	150	140	140	315
	玻璃轉化溫度 Glass Transition Temp.	D3482	°C	148	148	148	148	148
	連續使用溫度 Continuous Use Temp.	UL-746B	°C	260	260	260	260	260
	線性熱膨脹係數 Coefficient of Linear Thermal Expansion	D 696	10 ⁻⁵ /°C	5.3	5.3	4.5	4.5	1.3
電氣性質	介電強度 Dielectric Strength	D149	kV/mm	19	19	19	19	20
	介電常數 Dielectric Constant @ 60 Hz	D150	-	2.9	2.9	2.9	2.8	2.9
	介電損失 Dissipation Factor @ 60 Hz	D150	-	0.003	0.003	0.003	0.003	0.003
	體積固有電阻 Volume Resistivity	D257	Ohm-c m	>10 ¹⁶	>10 ¹⁶	>10 ¹⁶	>10 ¹⁶	>10 ¹⁶
	表面電阻 Surface Resistivity	D257	Ω/SQ	>10 ¹⁴	>10 ¹⁴	>10 ¹⁴	>10 ¹⁴	>10 ¹⁴
	相對電痕指數 Comparative Tracking Index	D3638	V	150	150	150	150	150
	耐電弧性 Arc Resistance	D495	sec	35	35	-	-	-
防火性	防火等級 Flammability thickness	UL-94	-	V-0@0.8 mm	V-0@0.8 mm	V-0@0.8 mm	V-0@3.2 mm	V-0@0.8 mm
	臨界含氧指數 Limiting Oxygen Index	D2863	%	40	40	40	40	45

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.

GATONE™ Poly Ether Ether Ketone 物性表二 Datasheets 2

項目 Property		試驗法 ASTM Method	單位 Units	Poly Ether Ether Ketone				
				5630GF	5330CF	5630CF	5330FC	5630FC
一般性質	比重 Specific Gravity	D792	-	1.5	1.4	1.4	1.42	1.42
	吸水率(24 hours) Water Absorption	D570	%	0.08	0.08	0.08	0.08	0.08
	熔融流速(380°C/5KG/6') Melt Volume Rate	D1238	cc / 10min	-	-	-	-	-
	成型收縮率-流動向,3.18mm 截面 Mold Shrinkage-flow direction	D955	%	0.30	0.05	0.05	0.35	0.35
	成型收縮率-垂直向,3.18mm 截面 Mold Shrinkage-vertical to flow	D955	%	-	0.50	0.50	-	-
	填充含量 Filler content	-	%	30	30	30	30	30
機械性質	伸張強度 Tensile Strength	D638	MPa	160	220	220	140	140
	伸張模數 Tensile Modulus	D638	MPa	10000	22000	22000	12000	12000
	伸延斷裂 Tensile Elongation at Break	D638	%	2.5	2.5	2.5	2.5	2.5
	彈性強度 Flexural Strength	D790	MPa	260	350	350	210	210
	彈性模數 Flexural Modulus	D790	MPa	10000	18000	18000	11100	11100
	洛氏硬度 Rockwell Hardness	D785	M scale	102	105	105	90	90
	衝擊強度(缺口) Impact Strength-Notched Izod	D256	J/m	95	80	80	50	50
熱性質	熱變形溫度 DTUL at 264 psi (1.82 MPa)	D648	°C	315	315	315	315	315
	玻璃轉化溫度 Glass Transition Temp.	D3482	°C	148	148	148	148	148
	連續使用溫度 Continuous Use Temp.	UL-746B	°C	260	260	260	260	260
	線性熱膨脹係數 Coefficient of Linear Thermal Expansion	D 696	10 ⁻⁵ /°C	1.3	3.16	3.16	1.14	1.14
電氣性質	介電強度 Dielectric Strength	D149	kV/mm	20	-	-	-	-
	介電常數 Dielectric Constant @ 60 Hz	D150	-	2.9	-	-	-	-
	介電損失 Dissipation Factor @ 60 Hz	D150	-	0.003	-	-	-	-
	體積固有電阻 Volume Resistivity	D257	Ohm-c m	>10 ¹⁶	-	-	-	-
	表面電阻 Surface Resistivity	D257	Ω/SQ	>10 ¹⁴	-	-	-	-
	相對電痕指數 Comparative Tracking Index	D3638	V	150	-	-	-	-
	耐電弧性 Arc Resistance	D495	sec	-	-	-	-	-
防火性	防火等級 Flammability thickness	UL-94	-	V-0@0.8m m	V-0@0.8m m	V-0@0.8m m	V-0@0.8m m	V-0@0.8m m
	臨界含氧指數 Limiting Oxygen Index	D2863	%	45	45	45	30	30

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.