

TECAPEEK CMF white - 型材 (棒材, 板材, 管件)

化學命名

PEEK (聚醚醚酮)

顏色

白色 不透明

密度

1.65 g/cm³

添加物

陶瓷

主要特色

- 良好的加工特性
- 良好的尺寸穩定性
- 高強度
- 高剛性
- 低熱膨脹
- 毛邊較少
- 良好的熱變形溫度
- 優異的耐熱性

目標產業

- 半導體科技
- 電子學
- 機械工程
- 真空科技

機械特性	參數	值	單位	標準	註解
抗拉強度	50mm/min	105	MPa	DIN EN ISO 527-2	(1) For tensile test: specimen type 1b
彈性模數 (張力測試)	1mm/min	5500	MPa	DIN EN ISO 527-2	(2) For flexural test: support span 64mm, norm specimen.
降伏點抗拉強度	50mm/min	102	MPa	DIN EN ISO 527-2	(3) Specimen 10x10x10mm
降伏點伸長率	50mm/min	3	%	DIN EN ISO 527-2	(4) Specimen 10x10x50mm, modulus range between 0.5 and 1% compression.
斷裂伸長率	50mm/min	4	%	DIN EN ISO 527-2	(5) For Charpy test: support span 64mm, norm specimen.
抗彎強度	2mm/min, 10 N	170	MPa	DIN EN ISO 178	(2)
彈性模數 (彎曲測試)	2mm/min, 10 N	5500	MPa	DIN EN ISO 178	
壓縮強度	1% / 2% / 5% 5mm/min, 10 N	25/46/105	MPa	EN ISO 604	(3)
壓縮模數	5mm/min, 10 N	4300	MPa	EN ISO 604	(4)
衝擊強度(Charpy)	max. 7.5J	65	kJ/m ²	DIN EN ISO 179-1eU	(5)
蕭氏硬度	D	90		DIN EN ISO 868	
熱特性	參數	值	單位	標準	註解
玻璃轉化溫度		151	°C	DIN EN ISO 11357	(1)
熔化溫度		339	°C	DIN EN ISO 11357	
使用溫度	short term	300	°C		(2)
使用溫度	long term	260	°C		
熱膨脹 (CLTE)	23-60°C, long.	5	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
熱膨脹 (CLTE)	23-100°C, long.	5	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
熱膨脹 (CLTE)	100-150°C, long.	6	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
比熱		1.0	J/(g*K)	ISO 22007-4:2008	
導熱係數		0.38	W/(K*m)	ISO 22007-4:2008	
電性特性	參數	值	單位	標準	註解
表面電阻	Silver electrode, 23°C, 12% r.h.	10 ¹⁴	Ω	-	(1) Specimen in 20mm thickness
體積電阻	Silver electrode, 23°C, 12% r.h.	10 ¹⁴	Ω*cm	-	(2) Specimen in 1mm thickness
介電強度	23°C, 50% r.h.	57	kV/mm	ISO 60243-1	(2)
耐電痕(CTI)	Platin electrode, 23°C, 50% r.h., solvent A	175	V	DIN EN 60112	
其他特性	參數	值	單位	標準	註解
吸水率	24h / 96h (23°C)	0.02 / 0.03	%	DIN EN ISO 62	(1) (1) Ø ca. 50mm, h=13mm
耐熱水/鹼		+	-	-	(2) (2) + good resistance
耐候性		-	-	-	(3) (3) - poor resistance
耐燃性(UL94)	corresponding to	V0	-	DIN IEC 60695-11-10;	(4) (4) Corresponding means no listing at UL (yellow card). The information might be taken from resin, stock shape or estimation. Individual testing regarding application conditions is mandatory.

→ TECAPEEK 產品是使用 Victrex® PEEK 原物料製作而成。

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