

TECAPEEK ELS CF30 black - 型材 (棒材, 板材, 管件)

化學命名

PEEK (聚醚醚酮)

顏色

黑色 不透明

密度

1.38 g/cm³

添加物

碳纖維

主要特色

- 良好的熱變形溫度
- 良好的耐化學性
- 固有的防火性
- 耐水解和熱蒸氣
- 極高的剛性
- 極高的耐蠕變性
- 良好的尺寸穩定性
- 高能輻射抗性

目標產業

- 輸送機技術
- 半導體科技
- 機械工程
- 航空與航太科技
- 化學技術
- 紡織工業
- 汽車工業
- 真空科技

機械特性	參數	值	單位	標準	註解
抗拉強度	50mm/min	122	MPa	DIN EN ISO 527-2	(1) For tensile test: specimen type 1b
彈性模數 (張力測試)	1mm/min	6800	MPa	DIN EN ISO 527-2	(1) (2) For flexural test: support span 64mm, norm specimen.
降伏點抗拉強度	50mm/min	122	MPa	DIN EN ISO 527-2	(3) Specimen 10x10x10mm
降伏點伸長率	50mm/min	7	%	DIN EN ISO 527-2	(4) Specimen 10x10x50mm, modulus range between 0.5 and 1% compression.
斷裂伸長率	50mm/min	7	%	DIN EN ISO 527-2	(5) For Charpy test: support span 64mm, norm specimen.
抗彎強度	2mm/min, 10 N	193	MPa	DIN EN ISO 178	(2)
彈性模數 (彎曲測試)	2mm/min, 10 N	6800	MPa	DIN EN ISO 178	
壓縮強度	1% / 2% 5mm/min, 10 N	25 / 47	MPa	EN ISO 604	(3)
壓縮模數	5mm/min, 10 N	5000	MPa	EN ISO 604	(4)
衝擊強度(Charpy)	max. 7,5J	62	kJ/m ²	DIN EN ISO 179-1eU	(5)
蕭氏硬度	D	91		DIN EN ISO 868	
熱特性	參數	值	單位	標準	註解
玻璃轉化溫度		147	°C	DIN EN ISO 11357	(1)
熔化溫度		341	°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.	4	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
熱膨脹 (CLTE)	23-100°C, long.	4	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		1.2	J/(g*K)	ISO 22007-4:2008	
導熱係數		0.66	W/(K*m)	ISO 22007-4:2008	
電性特性	參數	值	單位	標準	註解
表面電阻		10 ² - 10 ⁴	Ω	DIN EN 61340-2-3	
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 (2) + good resistance (3) - poor resistance (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.
耐熱水/鹼		+	-	-	(2)
耐候性		-	-	-	(3)
耐燃性(UL94)	corresponding to	V0		DIN IEC 60695-11-10;	(4)

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

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