

TECAPEEK PVX 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

1.44 g/cm³

添加物

碳纖維, 鐵氟龍, 石墨

主要特色

- 良好的熱變形溫度
- 高蠕變抗性
- 良好的滑動及耐磨特性
- 耐水解和熱蒸氣
- 良好的磨損性
- 固有的防火性
- 優異的耐化學性

目標產業

- 機械工程
- 化學技術
- 能源工業
- 汽車工業
- 航空與航太科技

機械特性	參數	值	單位	標準	註解
抗拉強度	50mm/min	84	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, nom specimen.
降伏點抗拉強度	50mm/min	84	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	3	%	DIN EN ISO 527-2	(5) For Charpy test: support span 64mm, nom specimen.
抗彎強度	2mm/min, 10 N	142	MPa	DIN EN ISO 178	(6) Specimen in 4mm thickness
彈性模數 (彎曲測試)	2mm/min, 10 N	6000	MPa	DIN EN ISO 178	
壓縮強度	1% / 2% / 5% 5mm/min, 10 N	22/43/102	MPa	EN ISO 604	(3)
壓縮模數	5mm/min, 10 N	4000	MPa	EN ISO 604	(4)
衝擊強度(Charpy)	max. 7,5J	28	kJ/m ²	DIN EN ISO 179-1eU	(5)
球壓式硬度		250	MPa	ISO 2039-1	(6)
熱特性	參數	值	單位	標準	註解
玻璃轉化溫度		146	°C	DIN EN ISO 11357	(1)
熔化溫度		341	°C	DIN 53765	(2)
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.	3	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
熱膨脹 (CLTE)	23-100°C, long.	3	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
熱膨脹 (CLTE)	100-150°C, long.	4	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
比熱		1.1	J/(g*K)	ISO 22007-4:2008	
導熱係數		0.82	W/(K*m)	ISO 22007-4:2008	
電性特性	參數	值	單位	標準	註解
表面電阻	Conductive rubber, 23°C, 12% r.h.	10 ⁴ - 10 ¹¹	Ω	DIN EN 61340-2-3	(1) Specimen in 20mm thickness
體積電阻	Conductive rubber, 23°C, 12% r.h.	10 ⁷ - 10 ¹²	Ω*cm	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) Ø ca. 50mm, h=13mm (2) + good resistance (3) - poor resistance
耐熱水/鹼		+	-	-	(4) Corresponding means no listing at UL (yellow card).
耐候性		-	-	-	(3) The information might be taken from resin, stock shape or estimation. Individual testing regarding application conditions is mandatory.
耐燃性(UL94)	corresponding to	V0	-	DIN IEC 60695-11-10;	(4)

→ TECAPEEK產品使用Victrex®PEEK 450G或Solvay KetaSpire®KT-820製成

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