

## TECAPEEK ST black - 型材 (棒材, 板材, 管件)

### 化學命名

PEKEKK (聚醚酮醚酮酮)

### 顏色

黑色 不透明

### 密度

1.32 g/cm<sup>3</sup>

### 主要特色

- 高熱與機械能力
- 優異的耐化學性
- 良好的加工特性
- 良好的熱變形溫度
- 良好的尺寸穩定性
- 低吸濕性

### 目標產業

- 化學技術
- 機械工程
- 汽車工業

機械特性	參數	值	單位	標準	註解
抗拉強度	50mm/min	134	MPa	DIN EN ISO 527-2	(1) For tensile test: specimen type 1b
彈性模數 (張力測試)	1mm/min	4600	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	134	MPa	DIN EN ISO 527-2	(3) Specimen 10x10x10mm
降伏點伸長率	50mm/min	5	%	DIN EN ISO 527-2	(4) Specimen 10x10x50mm, modulus range between 0.5 and 1% compression.
斷裂伸長率	50mm/min	13	%	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) n.b. = not broken
彈性模數 (彎曲測試)	2mm/min, 10 N	4600	MPa	DIN EN ISO 178	(6) Specimen in 4mm thickness
壓縮強度	1% / 2% / 5% 5mm/min, 10 N	24/42/98	MPa	EN ISO 604	3)
壓縮模數	5mm/min, 10 N	3500	MPa	EN ISO 604	4)
衝擊強度(Charpy)	max. 7,5J	n.b.	kJ/m <sup>2</sup>	DIN EN ISO 179-1eU	5)
缺口衝擊強度(Charpy)	max. 7,5J	4	kJ/m <sup>2</sup>	DIN EN ISO 179-1eA	
球壓式硬度		275	MPa	ISO 2039-1	6)
熱特性	參數	值	單位	標準	註解
玻璃轉化溫度		165	°C	DIN EN ISO 11357	1) (1) Found in public sources.
熔化溫度		384	°C	DIN EN ISO 11357	(2) Found in public sources.
使用溫度	short term	300	°C		2) Individual testing regarding application conditions is mandatory.
使用溫度	long term	260	°C		
熱膨脹 (CLTE)	23-60°C, long.	5	10 <sup>-5</sup> K <sup>-1</sup>	DIN EN ISO 11359-1;2	
熱膨脹 (CLTE)	23-100°C, long.	5	10 <sup>-5</sup> K <sup>-1</sup>	DIN EN ISO 11359-1;2	
熱膨脹 (CLTE)	100-150°C, long.	6	10 <sup>-5</sup> K <sup>-1</sup>	DIN EN ISO 11359-1;2	
電性特性	參數	值	單位	標準	註解
表面電阻		10 <sup>14</sup>	Ω	DIN IEC 60093	
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) (+) limited 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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