

TECAPEEK UD blue - 型材 (棒材, 板材, 管件)

化學命名

PEEK (聚醚醚酮)

顏色

藍灰色 不透明

密度

1.71 g/cm³

添加物

可偵測填充物

主要特色

- 良好的耐化學性
- 金屬可偵測
- x光線下可偵測
- 高蠕變抗性
- 固有的防火性
- 良好的熱變形溫度
- 耐水解和熱蒸氣
- 良好的加工特性

目標產業

- 食品工程
- 食品加工
- 飲料填裝系統工程
- 輸送機技術
- 醫藥產業
- 機械工程

機械特性	參數	值	單位	標準	註解
抗拉強度	50mm/min	94	MPa	DIN EN ISO 527-2	(1) For tensile test: specimen type 1b
彈性模數 (張力測試)	1mm/min	5300	MPa	DIN EN ISO 527-2	(2) For flexural test: support span 64mm, norm specimen.
降伏點抗拉強度	50mm/min	94	MPa	DIN EN ISO 527-2	(3) Specimen 10x10x10mm
降伏點伸長率	50mm/min	4	%	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	155	MPa	DIN EN ISO 178	(6) Specimen in 4mm thickness
彈性模數 (彎曲測試)	2mm/min, 10 N	5000	MPa	DIN EN ISO 178	
壓縮強度	1% / 2% / 5% 5mm/min, 10 N	25/46/113	MPa	EN ISO 604	(3)
壓縮模數	5mm/min, 10 N	1800	MPa	EN ISO 604	(4)
衝擊強度(Charpy)	max. 7,5J	27	kJ/m ²	DIN EN ISO 179-1eU	(5)
缺口衝擊強度(Charpy)	max. 7,5J	4	kJ/m ²	DIN EN ISO 179-1eA	
球壓式硬度		257	MPa	ISO 2039-1	(6)
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) Found in public sources. Individual testing regarding application conditions is mandatory.
熔化溫度		340	°C	DIN EN ISO 11357	
使用溫度	short term	300	°C	-	(1)
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.	7	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
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)

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