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/cm^3

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 (2) For flexural test: support span 64mm, norm specimen. (3) Specimen 10x10x10mm (4) Specimen 10x10x50mm, modulus range between 0.5 and 1% compression. (5) For Charpy test: support span 64mm, norm specimen. (6) Specimen in 4mm thickness
彈性模數 (張力測試)	1mm/min	5300	MPa	DIN EN ISO 527-2	1)	
降伏點抗拉強度	50mm/min	94	MPa	DIN EN ISO 527-2		
降伏點伸長率	50mm/min	4	%	DIN EN ISO 527-2		
斷裂伸長率	50mm/min	4	%	DIN EN ISO 527-2		
抗彎強度	2mm/min, 10 N	155	MPa	DIN EN ISO 178	2)	
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	long term	260	°C	-		
使用溫度	short term	300	°C	-	1)	
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)	(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)	

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