

TECAPEI GF30 natural - 型材 (棒材, 板材, 管件)

化學命名

PEI (聚醚醚亞胺)

顏色

琥珀色 不透明

密度

1.51 g/cm³

添加物

玻璃纖維

主要特色

- 良好的尺寸穩定性
- 良好的熱變形溫度
- 高熱與機械能力
- 高強度
- 高蠕變抗性
- 電絕緣
- 高能輻射抗性
- 對壓力破裂敏感

目標產業

- 電子學
- 半導體科技
- 汽車工業
- 機械工程
- 真空科技

機械特性	參數	值	單位	標準	註解
抗拉強度	5mm/min	135	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	5mm/min	135	MPa	DIN EN ISO 527-2	(3) Specimen 10x10x10mm
降伏點伸長率	5mm/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	195	MPa	DIN EN ISO 178	(6) Specimen in 4mm thickness
彈性模數 (彎曲測試)	2mm/min, 10 N	5500	MPa	DIN EN ISO 178	
壓縮強度	1% / 2% 5mm/min, 10 N	18 / 39	MPa	EN ISO 604	(3)
壓縮模數	5mm/min, 10 N	4200	MPa	EN ISO 604	(4)
衝擊強度(Charpy)	max. 7.5J	51	kJ/m ²	DIN EN ISO 179-1eU	(5)
缺口衝擊強度(Charpy)	max. 2J	6	kJ/m ²	DIN EN ISO 179-1eA	
球壓式硬度		325	MPa	ISO 2039-1	(6)
熱特性	參數	值	單位	標準	註解
玻璃轉化溫度		213	°C	DIN EN ISO 11357	(1) Found in public sources. Individual testing regarding application conditions is mandatory.
熔化溫度			°C	DIN EN ISO 11357	
使用溫度	short term	200	°C		(1)
使用溫度	long term	170	°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	
電性特性	參數	值	單位	標準	註解
表面電阻		10 ¹⁴	Ω	-	
體積電阻		10 ¹⁴	Ω*cm	-	
其他特性	參數	值	單位	標準	註解
吸水率	24h / 96h (23°C)	0.04 / <0.1	%	DIN EN ISO 62	(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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