

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

化學命名

PPE (聚苯醚)

顏色

米黃色 不透明

密度

1.3 g/cm³

添加物

玻璃纖維

主要特色

- 極高的剛性
- 電絕緣
- 良好的可焊接性和黏結性
- 對壓力破裂敏感
- 高強度
- 良好的尺寸穩定性

目標產業

- 電子學
- 能源工業
- 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	73	MPa	DIN EN ISO 527-2	(1) For tensile test: specimen type 1b
彈性模數 (張力測試)	1mm/min	4100	MPa	DIN EN ISO 527-2	(2) For flexural test: support span 64mm, norm specimen.
降伏點抗拉強度	50mm/min	73	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	5	%	DIN EN ISO 527-2	(5) For Charpy test: support span 64mm, norm specimen.
抗彎強度	2mm/min, 10 N	116	MPa	DIN EN ISO 178	(2)
彈性模數 (彎曲測試)	2mm/min, 10 N	3900	MPa	DIN EN ISO 178	
壓縮強度	1% / 2% / 5% 5mm/min, 10 N	23/41/91	MPa	EN ISO 604	(3)
壓縮模數	5mm/min, 10 N	3300	MPa	EN ISO 604	(4)
衝擊強度(Charpy)	max. 7.5J	37	kJ/m ²	DIN EN ISO 179-1eU	(5)
蕭氏硬度	D	88		DIN EN ISO 868	
熱特性	參數	值	單位	標準	註解
玻璃轉化溫度		150	°C	DIN EN ISO 11357	(1)
熔化溫度		n.a.	°C	DIN EN ISO 11357	(2)
使用溫度	short term	110	°C		(3)
使用溫度	long term	85	°C		
熱膨脹 (CLTE)	23-60°C, long.	4	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
熱膨脹 (CLTE)	23-100°C, long.	4	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
比熱		1.2	J/(g*K)	ISO 22007-4:2008	
導熱係數		0.28	W/(K*m)	ISO 22007-4:2008	
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)	0.01 / 0.02	%	DIN EN ISO 62	(1) Ø ca. 50mm, h=13mm (2) (+) limited resistance (3) - poor resistance
耐熱水/鹼		(+)		-	(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.
耐候性		-		-	(3)
耐燃性(UL94)	corresponding to	HB		DIN IEC 60695-11-10;	(4)

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