

TECATRON SE natural - 型材 (棒材, 板材, 管件)

化學命名

PPS (聚苯硫醚)

顏色

米黃色 不透明

密度

1.36 g/cm³

主要特色

- 良好的熱變形溫度
- 良好的耐化學性
- 高能輻射抗性
- 高強度
- 良好的尺寸穩定性
- 高剛性
- 高蠕變抗性

目標產業

- 半導體科技

機械特性	參數	值	單位	標準	註解
抗拉強度	50mm/min	102	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	1) (2) For flexural test: support span 64mm, nom specimen.
降伏點抗拉強度	50mm/min	100	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, nom specimen.
抗彎強度	2mm/min, 10 N	151	MPa	DIN EN ISO 178	2)
彈性模數 (彎曲測試)	2mm/min, 10 N	4000	MPa	DIN EN ISO 178	
壓縮強度	1% / 2% / 5% 5mm/min, 10 N	20/38/96	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	29	kJ/m ²	DIN EN ISO 179-1eU	5)
球壓式硬度		248	MPa	ISO 2039-1	
熱特性	參數	值	單位	標準	註解
玻璃轉化溫度		97	°C	DIN EN ISO 11357	1) (1) Found in public sources.
熔化溫度		281	°C	DIN EN ISO 11357	(2) Found in public sources.
使用溫度	short term	260	°C		2) Individual testing regarding application conditions is mandatory.
使用溫度	long term	230	°C	-	
熱膨脹 (CLTE)	23-60°C, long.	6	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
熱膨脹 (CLTE)	23-100°C, long.	7	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
熱膨脹 (CLTE)	100-150°C, long.	12	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
比熱		1.0	J/(g*K)	ISO 22007-4:2008	
導熱係數		0.25	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	DIN IEC 60093	
體積電阻		10 ¹⁴	Ω*cm	DIN IEC 60093	
其他特性	參數	值	單位	標準	註解
吸水率	24h / 96h (23°C)	<0.01 / 0.01	%	DIN EN ISO 62	1) (1) Ø ca. 50mm, h=13mm
耐熱水/鹼		+	-	-	2) (2) + good resistance
耐候性		-	-	-	3) (3) - poor resistance
耐燃性(UL94)	corresponding to	V0	-	DIN IEC 60695-11-10;	4) (4) Corresponding means no listing at UL (yellow card).

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