

TECANAT CMP natural - 型材 (棒材, 板材, 管件)

化學命名

PC (聚碳酸酯)

顏色

透明色

密度

1.19 g/cm³

主要特色

- 高韌性
- 電絕緣
- 良好的加工特性
- 易於研磨
- 良好的熱變形溫度
- 對壓力破裂敏感
- 良好的可焊接性和黏結性

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	69	MPa	DIN EN ISO 527-2	(1) For tensile test: specimen type 1b
彈性模數 (張力測試)	1mm/min	2200	MPa	DIN EN ISO 527-2	(2) For flexural test: support span 64mm, norm specimen.
降伏點抗拉強度	50mm/min	69	MPa	DIN EN ISO 527-2	(3) Specimen 10x10x10mm
降伏點伸長率	50mm/min	6	%	DIN EN ISO 527-2	(4) Specimen 10x10x50mm, modulus range between 0.5 and 1% compression.
斷裂伸長率	50mm/min	90	%	DIN EN ISO 527-2	(5) For Charpy test: support span 64mm, norm specimen.
抗彎強度	2mm/min, 10 N	97	MPa	DIN EN ISO 178	n.b. = not broken
彈性模數 (彎曲測試)	2mm/min, 10 N	2300	MPa	DIN EN ISO 178	(6) Specimen in 4mm thickness
壓縮強度	1% / 2% 5mm/min, 10 N	16 / 29	MPa	EN ISO 604	
壓縮模數	5mm/min, 10 N	2000	MPa	EN ISO 604	
衝擊強度(Charpy)	max. 7.5J	n.b.	kJ/m ²	DIN EN ISO 179-1eU	
缺口衝擊強度(Charpy)	max. 7.5J	14	kJ/m ²	DIN EN ISO 179-1eA	
球壓式硬度		128	MPa	ISO 2039-1	
熱特性	參數	值	單位	標準	註解
玻璃轉化溫度		149	°C	DIN EN ISO 11357	(1) Found in public sources.
熔化溫度		n.a.	°C	DIN EN ISO 11357	(2) n.a. = not applicable
使用溫度	short term	140	°C		(3) Found in public sources.
使用溫度	long term	120	°C		Individual testing regarding application conditions is mandatory.
熱膨脹 (CLTE)	23-60°C, long.	8	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
熱膨脹 (CLTE)	23-100°C, long.	8	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
比熱		1.3	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	-	
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)	0.03 / 0.06	%	DIN EN ISO 62	(1) Ø ca. 50mm, h=13mm
耐熱水/鹼		-	-	-	(2) - poor resistance
耐候性		(+)	-	-	(3) (+) limited resistance
耐燃性(UL94)	corresponding to	HB	-	DIN IEC 60695-11-10;	(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.

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