

TECANAT 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

- 機械工程
- 電子學
- 食品科技
- 汽車工業

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
彈性模數 (張力測試)	1mm/min	2200	MPa	DIN EN ISO 527-2
降伏點抗拉強度	50mm/min	69	MPa	DIN EN ISO 527-2
降伏點伸長率	50mm/min	6	%	DIN EN ISO 527-2
斷裂伸長率	50mm/min	90	%	DIN EN ISO 527-2
抗彎強度	2mm/min, 10 N	97	MPa	DIN EN ISO 178
彈性模數 (彎曲測試)	2mm/min, 10 N	2300	MPa	DIN EN ISO 178
壓縮強度	1% / 2% / 5% 5mm/min, 10 N	16/29/64	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
蕭氏硬度	D	82		DIN EN ISO 868

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)
熔化溫度	n.a.	°C	DIN EN ISO 11357	2)
使用溫度	short term	140	°C	3)
使用溫度	long term	120	°C	
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
耐熱水/鹼	-	-	-	1) (2) - poor resistance (3) (+) limited resistance
耐候性	(+)	-	-	3)
耐燃性(UL94)	listed (value at 0.4 and 1.5 mm)	HB	DIN IEC 60695-11-10;	

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