

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

化學命名

PC (聚碳酸酯)

顏色

白色 半透明色

密度

1.42 g/cm³

添加物

玻璃纖維

主要特色

- 良好的熱變形溫度
- 電絕緣
- 對壓力破裂敏感
- 高強度
- 良好的可焊接性和黏結性

目標產業

- 機械工程
- 電子學
- 汽車工業

| 機械特性 | 參數 | 值 | 單位 | 標準 | 註解 |
|--------------|-------------------------------|------------------|----------------------------------|----------------------|--|
| 抗拉強度 | 50mm/min | 85 | MPa | DIN EN ISO 527-2 | (1) For tensile test: specimen type 1b |
| 彈性模數 (張力測試) | 1mm/min | 4400 | MPa | DIN EN ISO 527-2 | (1) (2) For flexural test: support span 64mm, norm specimen. |
| 降伏點抗拉強度 | 50mm/min | 87 | 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 | 6 | % | DIN EN ISO 527-2 | (5) For Charpy test: support span 64mm, norm specimen. |
| 抗彎強度 | 2mm/min, 10 N | 138 | MPa | DIN EN ISO 178 | (2) |
| 彈性模數 (彎曲測試) | 2mm/min, 10 N | 4500 | MPa | DIN EN ISO 178 | |
| 壓縮強度 | 1% / 2% / 5% 5mm/min, 10 N | 21/39/87 | 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 | 71 | 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 | | 147 | °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. | 5 | 10 ⁻⁵ K ⁻¹ | DIN EN ISO 11359-1;2 | |
| 熱膨脹 (CLTE) | 23-100°C, long. | 5 | 10 ⁻⁵ K ⁻¹ | DIN EN ISO 11359-1;2 | |
| 比熱 | | 1.1 | J/(g*K) | ISO 22007-4:2008 | |
| 導熱係數 | | 0.32 | 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 / 0.05 | % | DIN EN ISO 62 | (1) (2) (3) |
| 耐熱水/鹼 | | - | - | - | (2) |
| 耐候性 | | - | - | - | |
| 耐燃性(UL94) | corresponding to | HB | | DIN IEC 60695-11-10; | (3) |

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