

TECADUR PBT GF30 natural - 型材 (棒材, 板材, 管件)

化學命名

PBT (聚對苯二甲酸丁二酯)

顏色

灰白色 不透明

密度

1.46 g/cm³

添加物

玻璃纖維

主要特色

- 良好的尺寸穩定性
- 極高的強度
- 良好的耐化學性
- 極高的剛性
- 良好的可焊接性和黏結性
- 不耐60°C以上的熱水

目標產業

- 電子學
- 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 | 46 | MPa | DIN EN ISO 527-2 | (1) For tensile test: specimen type 1b |
| 彈性模數 (張力測試) | 1mm/min | 3400 | MPa | DIN EN ISO 527-2 | (2) For flexural test: support span 64mm, norm specimen. |
| 降伏點抗拉強度 | 50mm/min | 46 | 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 | 6 | % | DIN EN ISO 527-2 | (5) For Charpy test: support span 64mm, norm specimen. |
| 抗彎強度 | 2mm/min, 10 N | 78 | MPa | DIN EN ISO 178 | (6) Specimen in 4mm thickness |
| 彈性模數 (彎曲測試) | 2mm/min, 10 N | 3400 | MPa | DIN EN ISO 178 | |
| 壓縮強度 | 1% / 2% / 5% 5mm/min, 10 N | 20/38/76 | MPa | EN ISO 604 | (3) |
| 壓縮模數 | 5mm/min, 10 N | 2800 | MPa | EN ISO 604 | (4) |
| 衝擊強度(Charpy) | max. 7,5J | 37 | kJ/m ² | DIN EN ISO 179-1eU | (5) |
| 球壓式硬度 | | 115 | MPa | ISO 2039-1 | (6) |
| 熱特性 | 參數 | 值 | 單位 | 標準 | 註解 |
| 熔化溫度 | | 224 | °C | DIN EN ISO 11357 | (1) Found in public sources. Individual testing regarding application conditions is mandatory. |
| 使用溫度 | short term | 200 | °C | | (1) |
| 使用溫度 | long term | 110 | °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. | 10 | 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 | | 0.33 | 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 | |
| 其他特性 | 參數 | 值 | 單位 | 標準 | 註解 |
| 吸水率 | 24h / 96h (23°C) | 0.02 / 0.04 | % | DIN EN ISO 62 | (1) (1) Ø ca. 50mm, h=13mm (2) - poor resistance (3) 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. |
| 耐熱水/鹼 | | - | - | - | (2) |
| 耐候性 | | - | - | - | |
| 耐燃性(UL94) | corresponding to | HB | | DIN IEC 60695-11-10; | (3) |

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