

TECAPEEK CF30 black - 型材 (棒材, 板材, 管件)

化學命名

PEEK (聚醚醚酮)

顏色

黑色 不透明

密度

1.38 g/cm³

添加物

碳纖維

主要特色

- 良好的耐化學性
- 改良過的強度
- 固有的防火性
- 耐水解和熱蒸氣
- 極高的剛性
- 極高的耐蠕變性
- 良好的尺寸穩定性
- 高能輻射抗性

目標產業

- 機械工程
- 石油和天然氣工業
- 化學技術
- 汽車工業
- 航空與航太科技
- 真空科技

| 機械特性 | 參數 | 值 | 單位 | 標準 | 註解 |
|--------------|-------------------------------|------------------------------------|----------------------------------|----------------------|--|
| 抗拉強度 | 50mm/min | 112 | MPa | DIN EN ISO 527-2 | (1) For tensile test: specimen type 1b |
| 彈性模數 (張力測試) | 1mm/min | 6000 | MPa | DIN EN ISO 527-2 | (2) Specimen 10x10x10mm |
| 斷裂伸長率 | 50mm/min | 10 | % | DIN EN ISO 527-2 | (3) For Charpy test: support span 64mm, norm specimen. |
| 壓縮強度 | 1% / 2% / 5% 5mm/min, 10 N | 25/47/111 | MPa | EN ISO 604 | (4) Specimen in 4mm thickness |
| 衝擊強度(Charpy) | max. 7,5J | 92 | kJ/m ² | DIN EN ISO 179-1eU | 3) |
| 球壓式硬度 | | 298 | MPa | ISO 2039-1 | 4) |
| 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 | | 341 | °C | DIN EN ISO 11357 | (2) Found in public sources. Individual testing regarding application conditions is mandatory. |
| 使用溫度 | short term | 300 | °C | | 2) |
| 使用溫度 | long term | 260 | °C | | |
| 熱膨脹 (CLTE) | 23-60°C, long. | 4 | 10 ⁻⁵ K ⁻¹ | DIN EN ISO 11359-1;2 | |
| 熱膨脹 (CLTE) | 23-100°C, long. | 4 | 10 ⁻⁵ K ⁻¹ | DIN EN ISO 11359-1;2 | |
| 熱膨脹 (CLTE) | 100-150°C, long. | 6 | 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 | | 0.66 | 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 ³ - 10 ¹² | Ω | DIN EN 61340-2-3 | |
| 體積電阻 | | 10 ³ - 10 ¹² | Ω*cm | DIN EN 61340-2-3 | |
| 其他特性 | 參數 | 值 | 單位 | 標準 | 註解 |
| 吸水率 | 24h / 96h (23°C) | 0.02 / 0.03 | % | DIN EN ISO 62 | 1) (1) Ø ca. 50mm, h=13mm (2) + good resistance (3) - poor resistance |
| 耐熱水/鹼 | | + | | - | 2) (4) Corresponding means no listing at UL (yellow card). |
| 耐候性 | | - | | - | 3) The information might be taken from resin, stock shape or estimation. Individual testing regarding application conditions is mandatory. |
| 耐燃性(UL94) | corresponding to | V0 | | DIN IEC 60695-11-10; | 4) |

→ TECAPEEK產品使用Victrex®PEEK 450G或Solvay KetaSpire®KT-820製成

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