

## TECANYL 731 grey - 型材(棒材,板材,管件)

**化學命名**  
PPE (聚苯醚)

**顏色**  
灰色 不透明

**密度**  
1.1 g/cm<sup>3</sup>

### 主要特色

- 高強度
- 電絕緣
- 高韌性
- 良好的可焊接性和黏結性
- 對壓力破裂敏感

### 目標產業

- 機械工程
- 電子學
- 能源工業
- 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                      | 57          | MPa                              | DIN EN ISO 527-2     |    |
| 彈性模數 (張力測試)  | 1mm/min                       | 2400        | MPa                              | DIN EN ISO 527-2     | 1) |
| 降伏點抗拉強度      | 50mm/min                      | 57          | MPa                              | DIN EN ISO 527-2     |    |
| 降伏點伸長率       | 50mm/min                      | 15          | %                                | DIN EN ISO 527-2     |    |
| 斷裂伸長率        | 50mm/min                      | 22          | %                                | DIN EN ISO 527-2     |    |
| 抗彎強度         | 2mm/min, 10 N                 | 85          | MPa                              | DIN EN ISO 178       | 2) |
| 彈性模數 (彎曲測試)  | 2mm/min, 10 N                 | 2500        | MPa                              | DIN EN ISO 178       |    |
| 壓縮強度         | 1% / 2% / 5%<br>5mm/min, 10 N | 18/33/74    | MPa                              | EN ISO 604           | 3) |
| 壓縮模數         | 5mm/min, 10 N                 | 2100        | MPa                              | EN ISO 604           | 4) |
| 衝擊強度(Charpy) | max. 7,5J                     | 69          | kJ/m <sup>2</sup>                | DIN EN ISO 179-1eU   | 5) |
| 球壓式硬度        |                               | 146         | MPa                              | ISO 2039-1           | 6) |
| 熱特性          | 參數                            | 值           | 單位                               | 標準                   | 註解 |
| 玻璃轉化溫度       |                               | 145         | °C                               | DIN EN ISO 11357     | 1) |
| 熔化溫度         |                               | n.a.        | °C                               | DIN EN ISO 11357     | 2) |
| 使用溫度         | short term                    | 110         | °C                               |                      | 3) |
| 使用溫度         | long term                     | 85          | °C                               |                      |    |
| 熱膨脹 (CLTE)   | 23-60°C, long.                | 8           | 10 <sup>-5</sup> K <sup>-1</sup> | DIN EN ISO 11359-1;2 |    |
| 熱膨脹 (CLTE)   | 23-100°C, long.               | 8           | 10 <sup>-5</sup> K <sup>-1</sup> | DIN EN ISO 11359-1;2 |    |
| 比熱           | 1.3                           | J/(g*K)     |                                  | ISO 22007-4:2008     |    |
| 導熱係數         | 0.21                          | 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 <sup>14</sup>              | Ω           |                                  | -                    |    |
| 體積電阻         | 10 <sup>14</sup>              | Ω*cm        |                                  | -                    |    |
| 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) |
| 耐熱水/鹼        | (+)                           | -           | -                                |                      | 2) |
| 耐候性          | -                             | -           | -                                |                      | 3) |
| 耐燃性(UL94)    | corresponding to              | HB          |                                  | DIN IEC 60695-11-10; | 4) |

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