

## TECATRON PVX black - 型材 (棒材, 板材, 管件)

### 化學命名

PPS (聚苯硫醚)

### 顏色

黑色 不透明

### 密度

1.5 g/cm<sup>3</sup>

### 添加物

碳纖維, 鐵氟龍, 石墨

### 主要特色

- 優異的耐化學性
- 良好的熱變形溫度
- 優異的滑動和耐磨特性
- 固有的防火性
- 良好的尺寸穩定性
- 高剛性
- 高蠕變抗性

### 目標產業

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

| 機械特性         | 參數                            | 值                                 | 單位                               | 標準                   | 註解   |
|--------------|-------------------------------|-----------------------------------|----------------------------------|----------------------|--|
| 抗拉強度         | 50mm/min                      | 53                                | MPa                              | DIN EN ISO 527-2     | (1) For tensile test: specimen type 1b   |
| 彈性模數 (張力測試)  | 1mm/min                       | 4600                              | MPa                              | DIN EN ISO 527-2     | (2) For flexural test: support span 64mm, norm specimen.   |
| 降伏點抗拉強度      | 50mm/min                      | 53                                | MPa                              | DIN EN ISO 527-2     | (3) Specimen 10x10x10mm  |
| 降伏點伸長率       | 50mm/min                      | 2                                 | %                                | DIN EN ISO 527-2     | (4) Specimen 10x10x50mm, modulus range between 0.5 and 1% compression.   |
| 斷裂伸長率        | 50mm/min                      | 2                                 | %                                | DIN EN ISO 527-2     | (5) For Charpy test: support span 64mm, norm specimen.   |
| 抗彎強度         | 2mm/min, 10 N                 | 91                                | MPa                              | DIN EN ISO 178       | (2)  |
| 彈性模數 (彎曲測試)  | 2mm/min, 10 N                 | 4800                              | MPa                              | DIN EN ISO 178       |  |
| 壓縮強度         | 1% / 2% / 5%<br>5mm/min, 10 N | 19/36/89                          | 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                     | 14                                | kJ/m <sup>2</sup>                | DIN EN ISO 179-1eU   | (5)  |
| 蕭氏硬度         | D                             | 85                                |                                  | DIN EN ISO 868       |  |
| 熱特性          | 參數                            | 值                                 | 單位                               | 標準                   | 註解   |
| 玻璃轉化溫度       |                               | 94                                | °C                               | DIN EN ISO 11357     | (1)  |
| 熔化溫度         |                               | 281                               | °C                               | DIN EN ISO 11357     |  |
| 使用溫度         | short term                    | 260                               | °C                               |                      | (2)  |
| 使用溫度         | long term                     | 230                               | °C                               |                      |  |
| 熱膨脹 (CLTE)   | 23-60°C, long.                | 5                                 | 10 <sup>-5</sup> K <sup>-1</sup> | DIN EN ISO 11359-1;2 |  |
| 熱膨脹 (CLTE)   | 23-100°C, long.               | 6                                 | 10 <sup>-5</sup> K <sup>-1</sup> | DIN EN ISO 11359-1;2 |  |
| 熱膨脹 (CLTE)   | 100-150°C, long.              | 13                                | 10 <sup>-5</sup> K <sup>-1</sup> | DIN EN ISO 11359-1;2 |  |
| 比熱           |                               | 0.9                               | J/(g*K)                          | ISO 22007-4:2008     |  |
| 導熱係數         |                               | 0.58                              | 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>4</sup> -10 <sup>10</sup> | Ω                                | DIN EN 61340-2-3     |  |
| 體積電阻         |                               | 10 <sup>7</sup> -10 <sup>12</sup> | 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)              | <0.01 / <0.01                     | %                                | DIN EN ISO 62        | (1) (1) Ø ca. 50mm, h=13mm<br>(2) + good resistance<br>(3) (+) limited resistance<br>(4) 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          |                               | (+)                               | -                                |                      | (3)  |
| 耐燃性(UL94)    | corresponding to              | V0                                |                                  | DIN IEC 60695-11-10; | (4)  |

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