

PEEK/WG1

物性表 Property Date

| 材料性能<br>Material Properties               | 条件<br>Condition                     | 试验方法<br>Test Method | 单位<br>Unit                         | PEEK/<br>WG1    |
|-------------------------------------------|-------------------------------------|---------------------|------------------------------------|-----------------|
| 机械性能 Mechanical Date                      |                                     |                     |                                    |                 |
| 拉伸强度<br>Tensile Strength                  | 23℃                                 | ISO 527             | MPa                                | 185             |
| 断裂伸长率<br>Tensile Elongation               | 23℃                                 | ISO 527             | %                                  | 1.8             |
| 拉伸模量<br>Tensile Modulus                   | 23℃                                 | ISO 527             | GPa                                | 21              |
| 弯曲强度<br>Flexural Strength                 | 23℃                                 | ISO 178             | MPa                                | 280             |
| 弯曲模量<br>Flexural Modulus                  | 23℃                                 | ISO 178             | GPa                                | 16              |
| 简支梁冲击强度<br>Charpy Impact Strength         | 23℃，有缺口<br>Notched 23℃              | ISO 179/1eA         | KJ×m <sup>-2</sup>                 | 5.0             |
| 热性能 Thermal Date                          |                                     |                     |                                    |                 |
| 熔点<br>Melting Point                       |                                     | ISO 11357           | ℃                                  | 334             |
| 玻璃化温度<br>Glass Transition                 |                                     | ISO 11357           | ℃                                  | 143             |
| 热膨胀系数<br>Coefficient of Thermal Expansion | 温度低于 Tg 平均值<br>Temperature Below Tg | ISO 11359           | ppm×℃ <sup>-1</sup>                | 45              |
|                                           | 温度高于 Tg 平均值<br>Temperature Above Tg | ISO 11359           | ppm×℃ <sup>-1</sup>                | 120             |
| 热变形温度<br>Heat Deflection Temperature      | 1.8MPa                              | ISO 75              | ℃                                  | 280             |
| 导热系数<br>Thermal Conductivity              | 23℃                                 | ISO/CD22007-4       | W×m <sup>-1</sup> ×℃ <sup>-1</sup> | 0.6             |
| 物理性能 Miscellaneous                        |                                     |                     |                                    |                 |
| 密度<br>Density                             | 结晶<br>Crystalline                   | ISO 1183            | g×cm <sup>-3</sup>                 | 1.45            |
| 熔体粘度<br>Melting Index                     | 400℃,1000s <sup>-1</sup>            | ISO 11443           | Pa·s                               | 420             |
| 邵氏硬度<br>Shore D Hardness                  | 23℃                                 | ISO 868             | D                                  | 82              |
| 吸水率<br>Water Absorption                   | 24h, 23℃                            | ISO 62-1            | %                                  | 0.3             |
| 表面电阻率<br>Surface Resistivity              | 23℃                                 | GB/T 31838.3        | Ω                                  | 10 <sup>5</sup> |
| 体积电阻率<br>Volume Resistivity               | 23℃                                 | IEC 60093           | Ωcm                                | 10 <sup>5</sup> |

|                               |              |              |                      |                       |
|-------------------------------|--------------|--------------|----------------------|-----------------------|
| 成型收缩率<br>Mould Shrinkage Rate | 平行流动         | ISO 294-4    | %                    | 3                     |
|                               | 垂直流动         | ISO 294-4    | %                    | 5                     |
| 摩擦系数<br>Friction Coefficient  | 1MPa, 0.7m/s | ASTM G132-96 |                      | 0.30-0.35             |
| 磨耗值<br>Friction Loss          | 1MPa, 0.7m/s | ASTM G132-96 | mm <sup>3</sup> /N·m | 4.85×10 <sup>-8</sup> |
| 易燃性等级<br>Flammability Rating  |              | UL 94        |                      | V-0                   |