



恆祥龍®工程塑膠 物性表

Technical Properties of HiShiRon® Engineering Plastics

| 性質 | Characteristic | 方法 Method of verification | 單位 Unit | 塑膠鋼 POM |
|------------------|---|----------------------------------|------------------------------------|--------------------|
| I. 物理特性 | | I. Physical Properties | | |
| 比重 | Density | ISO 1183 | g/cm ³ | 1.39 |
| 吸水率 (飽和) | Water absorption | ISO 62 | % | < 0.3 |
| II. 機械特性 | | II. Mechanical Properties | | |
| 降伏點拉力強度 | Tensile strength at yield | ISO 527-2 | MPa | 63 |
| 斷裂拉力強度 | Tensile strength at break | ISO 527-2 | MPa | - |
| 斷裂伸長率 | Elongation at break | ISO 527-2 | % | 31 |
| 彈性模數—拉力試驗後 | Modulus of elasticity after tensile test | ISO 527-2 | MPa | 2,700 |
| 彈性模數—彎曲試驗後 | Modulus of elasticity after flexural test | ISO 178 | MPa | - |
| 硬度—洛氏 | Hardness - Rockwell | ISO 2039-2 | | - |
| 硬度—薛氏D | Hardness - Shore D | DIN 53505 | | 83 |
| 衝擊強度 | Charpy impact strength at 23°C | ISO 179 | kJ/m ² | N. B. |
| 磨擦係數 | Friction coefficient | DIN 53375 | | 0.35 |
| III. 熱特性 | | III. Thermal Properties | | |
| 熱變形溫度—HDT/A | Heat deflection temperature - HDT/A | ISO 75-2 | °C | 110 |
| 最高使用溫度—短時間 | Max. service temperature - Short term | | °C | 140 |
| 最高使用溫度—長期 | Max. Service Temperature - Long term | | °C | 100 |
| 熱傳導係數 | Thermal conductivity at 23 °C | DIN 11359 | W/(K*m) | 0.31 |
| 線性熱膨脹係數 | Coefficient of linear thermal expansion | ISO 11359 | 10 ⁻⁴ * K ⁻¹ | 1.20 |
| IV. 電氣特性 | | IV. Electrical Properties | | |
| 介電常數 | Dielectric constant at 1 MHz | IEC 60250 | 10 ⁶ Hz | 3.80 |
| 介電損失係數 | Dielectric loss factor at 1 MHz | IEC 60250 | 10 ⁶ Hz | 0.005 |
| 體積阻抗 | Volume resistivity | IEC 60093 | Ohm (Ω) * cm | ≥ 10 ¹³ |
| 表面阻抗 | Surface resistivity | IEC 60093 | Ohm (Ω) | ≥ 10 ¹³ |
| 介電強度 | Dielectric strength | IEC 60243-1 | kV/mm | 40 |
| V. 其他參考數據 | | V. Miscellaneous Data | | |
| 燃燒能力 | Flammability | UL 94 | Class | HB |

NOTE: 1 g/cm³ = 1,000 kg/m³, 1 Mpa = 1 N/mm², 1kV/mm = 1 MV/m

聲明 / Statement :

上述數據資料為現有訊息，表示個別測量的平均數據，代表恆祥龍®的產品及現有可取得之各項特性。

恆祥龍®不提供任何有關某特定用途的確定性質或適用性的法律保證責任。

The information mentioned the above are approximate figures based on our experience & knowledge .

They are as HiShiRon® products and possible application.

HiShiRon® will not provide any legally binding guarantee of certain properties, or any suitability.



恆祥龍®工程塑膠 物性表

Technical Properties of HiShiRon® Engineering Plastics

| 性質 | Characteristic | 方法 Method of verification | 單位 Unit | 防靜電 塑膠鋼 POM - ESD |
|------------------|---|----------------------------------|------------------------------------|----------------------|
| I. 物理特性 | | I. Physical Properties | | |
| 比重 | Density | ISO 1183 | g/cm ³ | 1.39 |
| 吸水率 (飽和) | Water absorption | ISO 62 | % | 0.25 |
| II. 機械特性 | | II. Mechanical Properties | | |
| 降伏點拉力強度 | Tensile strength at yield | ISO 527-2 | MPa | 45 |
| 斷裂拉力強度 | Tensile strength at break | ISO 527-2 | MPa | - |
| 斷裂伸長率 | Elongation at break | ISO 527-2 | % | ≥ 20 |
| 彈性模數—拉力試驗後 | Modulus of elasticity after tensile test | ISO 527-2 | MPa | 1,400 |
| 彈性模數—彎曲試驗後 | Modulus of elasticity after flexural test | ISO 178 | MPa | 1,450 |
| 硬度—洛氏 | Hardness - Rockwell | ISO 2039-2 | | M84 |
| 硬度—薛氏D | Hardness - Shore D | DIN 53505 | | - |
| 衝擊強度 | Charpy impact strength at 23°C | ISO 179 | kJ/m ² | N. B. |
| 磨擦係數 | Friction coefficient | DIN 53375 | | 0.20 |
| III. 熱特性 | | III. Thermal Properties | | |
| 熱變形溫度—HDT/A | Heat deflection temperature - HDT/A | ISO 75-2 | °C | 105 |
| 最高使用溫度—短時間 | Max. service temperature - Short term | | °C | 140 |
| 最高使用溫度—長期 | Max. Service Temperature - Long term | | °C | 100 |
| 熱傳導係數 | Thermal conductivity at 23 °C | DIN 11359 | W/(K*m) | 0.30 |
| 線性熱膨脹係數 | Coefficient of linear thermal expansion | ISO 11359 | 10 ⁻⁴ * K ⁻¹ | 0.65 |
| IV. 電氣特性 | | IV. Electrical Properties | | |
| 介電常數 | Dielectric constant at 1 MHz | IEC 60250 | 10 ⁶ Hz | - |
| 介電損失係數 | Dielectric loss factor at 1 MHz | IEC 60250 | 10 ⁶ Hz | - |
| 體積阻抗 | Volume resistivity | IEC 60093 | Ohm (Ω) * cm | 10 ⁹⁻¹¹ |
| 表面阻抗 | Surface resistivity | IEC 60093 | Ohm (Ω) | ≤ 10 ¹¹ |
| 介電強度 | Dielectric strength | IEC 60243-1 | kV/mm | - |
| V. 其他參考數據 | | V. Miscellaneous Data | | |
| 燃燒能力 | Flammability | UL 94 | Class | HB |

NOTE: 1 g/cm³ = 1,000 kg/m³, 1 Mpa = 1 N/mm², 1kV/mm = 1 MV/m

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