



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	TORLON® PAI
I. 物理特性		I. Physical Properties		
比重	Density	ISO 1183	g/cm ³	1.42
吸水率 (飽和)	Water absorption	ISO 62	%	2.50
II. 機械特性		II. Mechanical Properties		
降伏點拉力強度	Tensile strength at yield	ISO 527-2	MPa	147
斷裂拉力強度	Tensile strength at break	ISO 527-2	MPa	137
斷裂伸長率	Elongation at break	ISO 527-2	%	21
彈性模數—拉力試驗後	Modulus of elasticity after tensile test	ISO 527-2	MPa	3,800
彈性模數—彎曲試驗後	Modulus of elasticity after flexural test	ISO 178	MPa	3,750
硬度—洛氏	Hardness - Rockwell	ISO 2039-2		E79
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		-
III. 熱特性		III. Thermal Properties		
熱變形溫度—HDT/A	Heat deflection temperature - HDT/A	ISO 75-2	°C	280
最高使用溫度—短時間	Max. service temperature - Short term		°C	270
最高使用溫度—長期	Max. Service Temperature - Long term		°C	250
熱傳導係數	Thermal conductivity at 23 °C	DIN 11359	W/(K*m)	0.26
線性熱膨脹係數	Coefficient of linear thermal expansion	ISO 11359	10 ⁻⁴ * K ⁻¹	3.10
IV. 電氣特性		IV. Electrical Properties		
介電常數	Dielectric constant at 1 MHz	IEC 60250	10 ⁶ Hz	3.90
介電損失係數	Dielectric loss factor at 1 MHz	IEC 60250	10 ⁶ Hz	0.031
體積阻抗	Volume resistivity	IEC 60093	Ohm (Ω) * cm	> 10 ¹⁸
表面阻抗	Surface resistivity	IEC 60093	Ohm (Ω)	> 10 ¹⁸
介電強度	Dielectric strength	IEC 60243-1	kV/mm	24
V. 其他參考數據		V. Miscellaneous Data		
燃燒能力	Flammability	UL 94	Class	V-0

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。

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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.