



技術資料表
Technical Data Sheet

FGTYPE

高剛性強化級

High rigidity reinforced grade

樹脂 Resin PA12 Polyamide12

規格 Grade FG16-A4

來源 source 上禾伸企業

描述 Description

Nylon 12 (Polyamide 12, 尼龍 12) · 為熱可塑性半結晶型塑膠。與其他熱可塑性塑膠相比，在強度、延展性、耐磨性及耐熱性上提供了卓越的平衡，並有很好的流動性及寬廣的加工成型範圍，使其成為最普遍被使用的工程塑膠之一。

Nylon 12 的吸濕性低於 Nylon 6/6、Nylon 6、Nylon 6/10，使其不同的環境濕度下可維持良好的尺寸安定性，並在低溫環境有卓越的韌性及耐衝擊性。

其他優點如耐化學性佳、低比重、高改質複合性。

Nylon 12 (Polyamide 12, Nylon 12) is a thermoplastic semi-crystalline plastic. Compared with other thermoplastic plastics, it provides an excellent balance of strength, ductility, wear resistance and heat resistance, and has good fluidity and a wide range of processing and molding, making it the most commonly used engineering One of the plastics.

The hygroscopicity of Nylon 12 is lower than that of Nylon 6/6, Nylon 6 and Nylon 6/10, so that it can maintain good dimensional stability under different environmental humidity, and has excellent toughness and impact resistance in low temperature environment.

Other advantages such as good chemical resistance, low specific gravity, high modified composite.

■玻纖添加 30% · 剛性、耐熱強化、耐磨。

30% glass fiber added, rigid, heat-resistant and wear-resistant.

成型模式

射出成型

Forming mode

Injection Molding

DATE : 2022

PA12 FG16-A4 BK TDS 1/2

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特性 Properties

項目 Project	單位 Unit	測試標準 Testing standards	標準數值 Typical Value
填充劑含量 Filler Content	%		30
比重 Specific Gravity	g/cm ³	ASTM D792	1.23
流動指數 MFR,(MI) 275×2.16KG	g/10min	ASTM D1238	25
收縮率-平行∥ Mold Shrinkage MD	%	3 mm t	0.3
收縮率-垂直⊥ Mold Shrinkage TD			-0.6
耐燃性 Flammability		UL-94	HB
顏色 Color			natural

機械特性 Mechanical properties

伸張降伏強度 Tensile Strength at Yield	kg/ cm ²		1100
伸張斷裂強度 Tensile Strength at Break		ASTM D638	970
拉伸彈性係數 Tensile Modulus			66000
斷裂伸張率 Tensile Elongation at Break	%		5
彎曲強度 Flexural Strength	kg/ cm ²	ASTM D790	1650
彎曲模數 Flexural Modulus			56000
衝擊強度(缺口式)IZOD Impact (notched)	23°C kg-cm/cm	ASTM D256	19
硬度 Rockwell/Shore Hardness	R	ASTM D785	120

熱力特性 Heat properties

熱變型溫度 18.54kg/ cm ² H D T			160
熱變型溫度 4.6kg/ cm ² H D T	°C	ASTM D648	175

電氣特性 Electrical properties

體積固有阻抗 Volume inherent impedance	Ω-cm	ASTM D257	1×10 ¹⁴
表面阻抗 Surface resistivity	Ω		1×10 ¹⁴
塑料狀態 plastic state			乾燥 dry

成型條件 Molding conditions

烘乾溫度 Drying temp. °C	80~100	烘乾時間 Drying time H	4
進料區溫度 Feed zone temp. °C	210~225	壓縮區溫度 Compression zone temp. °C	220~235
計量區溫度 Metering zone temp. °C	225~235	噴嘴溫度 Nozzle temp. °C	225~240
模具溫度 Mold temp. °C	60~100	射出壓力 Injection pressure Kg/ cm ²	30~70

*雖然上述信息是出於善意並被認為是準確的，但我們不保證依賴此類信息取得令人滿意的結果，並且不承擔因使用此類信息而引起的任何損失或損害的全部責任。*以上數值係僅供選擇用途品級之參考。

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