技 術 資 料 表
Technical Data Sheet

DGNCTYPE

高剛性強化、高耐熱，奈米碳管 CNT 複合，永久抗靜電、靜電消散、低導電，高清潔度規格

High rigidity reinforcement, high heat resistance, carbon nanotube CNT composite, permanent antistatic, static dissipation, low conductivity, high cleanliness specifications

樹酯 Resin	**PA6** Polyamide6
規格 Grade	DGNC56D-M5 BK
來源 source	上禾伸企業

描述 Description

■添加 30%GF 高剛性強化、高耐熱。耐彎曲、反撥彈性佳，可承重、抗重壓，耐溫可達 210℃。

Add 30% GF to strengthen the rigidity and heat resistance. It is resistant to bending and rebounding, can bear weight and resist heavy pressure, and can withstand temperatures up to 210℃

■CNT 奈米碳管填充，永久抗靜電，靜電消散、低導電，阻抗達 $10^{5\sim6}$，阻抗高穩定性，且高清潔度，使用期間不會產生黑色痕跡，與產生黑色粉塵，影響產品、環境清潔度。

Filled with CNT nanotubes, it is permanently antistatic, dissipative, and low conductive, with an impedance of 105~6. It has high impedance stability and high cleanliness. It will not produce black marks or black dust during use, which would affect the cleanliness of the product or the environment.

■耐化學性、耐油性佳，對油及化學品抵抗性佳，對汽油、耐潤滑油、耐酮、酯、醛類等性質佳。

Good chemical resistance and oil resistance, good resistance to oil and chemicals, good resistance to gasoline, lubricating oil, ketones, esters, aldehydes, etc.

■耐磨耗，耐刮擦，適合動態產品，承受快速耐磨，低磨耗，PA6 具有自潤滑性，因此耐磨耗性佳，適合用於齒輪類產品。

Wear-resistant, scratch-resistant, suitable for dynamic products, rapid wear resistance, low wear, PA6 has self-lubricating properties, so it has good wear resistance and is suitable for gear products.

■成型快、流動 Mi 高，脫模容易。

Fast forming, high flow Mi, easy demoulding.

成型模式 Forming mode	射出成型 Injection Molding

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特性 Properties

項目 Project	測試標準 Testing standards	單 位 Unit	標準數值 Typical Value
填充劑含量 Filler Content		%	30
比重 Specific Gravity	ASTM D792	g/cm³	1.37
流動指數 MFR,(MI) 190×2.16KG	ASTM D1238	g/10min 8	7.5
收縮率-平行 ‖ Mold Shrinkage MD	3 mm t	%	0.3
收縮率-垂直 ⊥ Mold Shrinkage TD			~0.7
耐燃性 Flammability	UL-94		HB
顏色 Color			Black color
機械特性 Mechanical properties			
伸張降伏強度 Tensile Strength at Yield	ASTM D638	kg/ cm²	1600
伸張斷裂強度 Tensile Strength at Break			1450
拉伸模數 Tensile Modulus			62000
斷裂伸張率 Tensile Elongation at Break		%	2.5
彎曲強度 Flexural Strength	ASTM D790	kg/ cm²	2550
彎曲模數 Flexural Modulus			82000
衝擊強度(缺口式)IZOD Impact (notched)	ASTM D256	23℃ kg-cm/cm	11.5
硬度 Rockwell/Shore Hardness	ASTM D785/D2240	D	80
熱力特性 Heat properties			
熱變型溫度 18.54kg/ cm²	ASTM D648	℃	210
Heat distortion temperature H D T			
熱變型溫度 4.6kg/ cm²			220
Heat distortion temperature H D T			
電氣特性 Electrical properties			
體積固有阻抗 Volume inherent impedance	ASTM D257	Ω·cm	$10^{5\sim6}$
表面阻抗 Surface resistivity		Ω	$10^{5\sim6}$
塑料狀態 plastic state			乾燥 dry

成型條件 Molding conditions

烘乾溫度 Drying temp. ℃	80~100	烘乾時間 Drying time H	4
進料區溫度 Feed zone temp. ℃	255~270	壓縮區溫度 Compression zone temp. ℃	255~280
計量區溫度 Metering zone temp. ℃	265~285	噴嘴溫度 Nozzle temp. ℃	265~290
模具溫度 Mold temp. ℃	70~110	射出壓力 Injection pressure Kg/ cm²	700~1100

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