



## 技術資料表 Technical Data Sheet

### **HDTYPE**

**PAMXD6 剛性高強化，高耐熱，低吸濕、尺寸安定系列**

**PAMXD6 series with high rigidity, high heat resistance, low moisture absorption and stable dimensions**

**樹脂 Resin** 芳香族 PA MXD6 Aromatic Polyamide MXD6

**規格 Grade** HDG16-A1 HDG1X-A1 HDG1X2-A1 HDGT5X-A2 HDC16-A3 /HDC18-A3

**來源 source** 上禾伸企業

#### **描述 Description**

■芳香族尼龍 PA MXD6 複合，高剛性高耐熱強化，低吸濕，尺寸安定。**HEG** 系列規格高度填充 GF 玻纖 30/50/60%，也能維持產品最佳表面。應用於汽車相關零件與電子、電器產品非常合適。

Aromatic nylon PA MXD6 composite, high rigidity and heat resistance reinforcement, low moisture absorption, and dimensional stability. HEG series specifications are highly filled with GF glass fiber 30/50/60%, which can also maintain the best surface of the product. It is very suitable for use in automobile-related parts and electronic and electrical products.

■**HDGT5X -A2** 規格，填充 50%GF 玻纖/礦物粉 MD，強調低吸濕、低翹曲，尺寸安定。

HDGT5X -A2 specifications, 50% GF glass fiber/mineral powder MD, emphasizing low moisture absorption, low warpage, and stable dimensions.

■**HDC** 系列規格填充 CF 碳纖 30/40%，高剛性高耐熱，低吸濕、尺寸安定，導電、靜電消散，阻抗達  $10^{1-4}$ 。可以使用於導電、靜電消散需求產品上。

HDC series specifications are filled with 30/40% CF carbon fiber, high rigidity and heat resistance, low moisture absorption, dimensional stability, conductive, static electricity dissipation, and impedance up to  $10^{1-4}$ .

■塑料吸濕飽和後，抗張強度與彎曲強度變化性比較低。

After the plastic is saturated with moisture, the variability of its tensile strength and flexural strength is relatively low.

■優異的機械性能和熱性能、線膨脹係數小、適於精密製品的加工及金屬替代材料。加上比重比金屬輕、易於成型、高設計自由度。

Excellent mechanical properties and thermal properties, small linear expansion coefficient, suitable for processing precision products and metal replacement materials. In addition, its specific gravity is lighter than metal, easy to form, and has high design freedom.

■耐化學性佳，對脂、油、燃料、液壓油、鹽溶液具良好的耐受性。

Good chemical resistance, good tolerance to grease, oil, fuel, hydraulic oil, salt solution.

■良好的抗低溫性、低溫時保持穩定的物性，常溫抗衝擊性佳。

Good low temperature resistance, stable physical properties at low temperatures, and good impact resistance at room temperature.



成型模式

射出成型

Forming mode

Injection Molding

特性 Properties

芳香族 PA MXD6 複合·低吸濕、尺寸安定、高剛性高耐熱強化級系列  
Aromatic PA MXD6 compound, low moisture absorption, dimensional stability, high rigidity and high heat resistance reinforced grade series

HDG16-A1  
高剛性

HDG1X-A1  
超高剛性

HDG1X2-A1  
超高剛性

HDGT5X-A2  
低翹曲

HDC16-A3  
/HDC18-A3  
導電碳纖

項目 Project	標準數值 Typical Value				
單位 Unit / 測試標準 Testing standards					
填充劑含量 Filler Content %	+GF30%	+GF50%	+GF60%	+GF/MD 50%	+CF30% +CF40%
比重 Specific Gravity g/cm <sup>3</sup> / ASTM D792	1.43	1.65	1.76	1.72	1.35 /1.41
吸濕率 Moisture absorption rate % 23°C水中 24 小時 24 hours in 23°C water	0.2	0.18	0.14	0.28	0.25 /0.25
吸濕率 Moisture absorption rate 平衡·23°C·50%相對濕度 % Equilibrium, 23°C, 50% relative humidity RH	1.4	1.0	0.8	1.5	1.9 /1.9
收縮率-平行    Mold Shrinkage MD 收縮率-垂直 ⊥ Mold Shrinkage TD % / 3 mm t	0.2~0.5	0.1~0.4	0.1~0.4	0.1~0.5	0.1~0.4 /0.1~0.4
耐燃性 Flammability 顏色 Color	HB Natural color	HB Natural color	HB Natural color	HB Natural color	HB Natural color

機械特性 Mechanical properties

伸張強度 Tensile Strength kg/ cm <sup>2</sup> / ASTM D638	1850	2550	2650	1800	2400 /2500
斷裂伸張率 Tensile Elongation at Break % / ASTM D638	2	2	2	2	1 /1
彎曲強度 Flexural Strength kg/ cm <sup>2</sup> / ASTM D790	2800	3950	4050	2850	3500 /3900
彎曲模數 Flexural Modulus kg/ cm <sup>2</sup> / ASTM D790	107000	195000	220000	145000	250000 /270000
衝擊強度(缺口式)IZOD Impact (notched) 23°C kg-cm/cm / ASTM D256	8	11	12	4	5 /6

熱力特性 Heat properties

熱變型溫度 18.54kg/ cm <sup>2</sup> H D T °C / ASTM D648	225	230	230	230	230 /230
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電氣特性 Electrical properties

體積固有阻抗 Volume inherent impedance Ω-cm / ASTM D257	10 <sup>13</sup>	10 <sup>13</sup>	10 <sup>13</sup>	10 <sup>13</sup>	10 <sup>1-4</sup>
表面阻抗 Surface resistivity Ω / ASTM D257	10 <sup>14</sup>	10 <sup>14</sup>	10 <sup>14</sup>	10 <sup>14</sup>	10 <sup>1-4</sup>

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	250~275	壓縮區溫度 Compression zone temp. °C	260~285
計量區溫度 Metering zone temp. °C	260~290	噴嘴溫度 Nozzle temp. °C	260~290



上禾伸企業有限公司

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模具溫度 Mold temp. °C

90~130

射出壓力 Injection pressure Kg/ cm<sup>2</sup>

300~700

\*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。

Although the above information is made in good faith and is believed to be accurate, we do not guarantee reliance on such information to obtain satisfactory results, and we do not assume full responsibility for any loss or damage caused by the use of such information. The above values are for reference only for the selected grade.

芳香族 PA MXD6 複合，剛性高強化，高耐熱，低吸濕、尺寸安定系列 3/3

202309 版

地址：333001 桃園市龜山區文化一路 533 號 11 樓之 6

TEL：+886-3-3960122(代表號) FAX：+886-3-3960706