



技術資料表
Technical Data Sheet

AAT5TYPE

抗菌防黴級

Antibacterial and antifungal grade

樹脂 Resin PP Polypropylene Homopolymer

規格 Grade AAT5B-B3

來源 source 上禾伸企業

描述 Description

PP 塑料與奈米鈦鋅離子有機合成抗菌劑複合改質，賦予產品優秀的抗菌防黴性能，良好的耐熱性，奈米鈦鋅離子熱裂解溫度達 $>350\text{ }^{\circ}\text{C}$ ，適合用於高溫加工製程的產品，長效的抗菌、滅菌性能，不析出、揮發、加工性優異，可避免製品受到有機生物的腐蝕、破壞，亦防止材料因為菌類造成白斑的影響，更可以防止腐敗與真菌產生。

The composite modification of PP plastic and nano-titanium zinc ion organic synthetic antibacterial agent endows the product with excellent antibacterial and anti-mildew properties and good heat resistance. The thermal cracking temperature of nano-titanium zinc ion can reach $>350\text{ }^{\circ}\text{C}$, which is suitable for high-temperature processing. The product has long-term antibacterial and sterilizing properties, no precipitation, no volatilization, and excellent processability, which can prevent the product from being corroded and damaged by organic organisms, prevent materials from being affected by white spots caused by fungi, and prevent corruption and fungi.

測試菌種 Test strain :

金黃色葡萄球菌 Staphylococcus aureus (ATCC 6538)

克雷白氏肺炎菌 Klebsiella pneumoniae (ATCC 4352)

測試結果 Test Results

測試菌種 Test strain	金黃色葡萄球菌 staphylococcus aureus (ATCC 6538)	克雷白氏肺炎菌 Klebsiella pneumoniae (ATCC 4352)
空白對照組菌數 The number of bacteria in the blank control group	$< 1\text{ CFU / ml}$	$< 1\text{ CFU / ml}$
測試樣品組最初的菌數 The initial bacterial count of the test sample group	$1.79 \times 10^5\text{ CFU / ml}$	$1.05 \times 10^5\text{ CFU / ml}$
測試樣品組與菌體接觸 0 小時之菌數 The number of bacteria in the test sample group contacted with the bacteria for 0 hours	$1.79 \times 10^5\text{ CFU / SAMPLE}$	$1.05 \times 10^5\text{ CFU / SAMPLE}$
測試樣品組與菌體接觸 24 小時之菌數 The number of bacteria in the test sample group contacted with the bacteria for 24 hours	$< 100\text{ CFU / SAMPLE}$	$< 100\text{ CFU / SAMPLE}$
抑菌率 Antibacterial rate	99.94%	99.90%



PP AAT5B-B3 抗菌防黴規格，對絕大多數病毒、細菌具備抗菌效果。

細菌與病菌是傳染病發生的主要因素，其中金色葡萄球菌與肺炎克雷伯菌，分別為百菌之王，與社區感染最普遍存在的病原菌，屬於傳染力極強之菌種，因此主要針對這兩種日常生活會接觸和主要的菌種做檢測，其他菌種客戶可依據實際需求送測。

PP AAT5B-B3 antibacterial and antifungal specification, has antibacterial effect on most viruses and bacteria.

Bacteria and germs are the main factors for the occurrence of infectious diseases. Among them, Staphylococcus aureus and Klebsiella pneumoniae are the king of bacteria respectively, and the sense of community

The most ubiquitous pathogenic bacteria are highly contagious strains. Therefore, the tests mainly focus on these two types of bacteria that are commonly encountered in daily life. Customers can send other strains for testing according to actual needs.

*上述提供的測試報告僅供參考。*The test report provided above is for reference only.

成型模式

射出成型

Forming mode

Injection Molding

特性 Properties

項目 Project	單位 Unit	測試標準 Testing standards	標準數值 Typical Value
比重 Specific Gravity	g/cm ³	ASTM D792	0.91
流動指數 MFR,(MI) 230×2.16KG	g/10min	ASTM D1238	16
收縮率-平行 Mold Shrinkage MD	%	3 mm t	1.3
收縮率-垂直 ⊥ Mold Shrinkage TD			1.7
耐燃性 Flammability		UL-94	HB
顏色 Color			natural color

機械特性 Mechanical properties

伸張降伏強度 Tensile Strength at Yield			350
伸張斷裂強度 Tensile Strength at Break	kg/ cm ²	ASTM D638	250
拉伸彈性係數 Tensile Modulus			15000
斷裂伸張率 Tensile Elongation at Break	%		120
彎曲強度 Flexural Strength	kg/ cm ²	ASTM D790	520
彎曲模數 Flexural Modulus			14000
衝擊強度(缺口式)IZOD Impact (notched)	23°C kg-cm/cm	ASTM D256	2.5
硬度 Rockwell/Shore Hardness	R	ASTM D785	100

熱力特性 Heat properties

熱變型溫度 18.54kg/ cm ² H D T			95
熱變型溫度 4.6kg/ cm ² H D T	°C	ASTM D648	110

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成型條件 Molding conditions

烘乾溫度 Drying temp. °C	80	烘乾時間 Drying time H	1~2
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	225~245	噴嘴溫度 Nozzle temp. °C	225~255
模具溫度 Mold temp. °C	50	射出壓力 Injection pressure Kg/ cm ²	120~200

*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.

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