



技術資料表 Technical Data Sheet

YXACTYPE

抗靜電母粒

Antistatic masterbatch

樹脂 Resin 抗靜電母粒 Antistatic masterbatch

規格 Grade YXAC1HX

來源 source 上禾伸企業

描述 Description

抗靜電劑的效果基本上取決於分子結構，分子結構決定了抗靜電劑的重要性能如極性和遷移性。YXAC1HX 分子中的長碳鏈提供了對極性塑料的遷移性，而其極性基團則提供了吸濕性，即它結合了形成導電膜必須的濕氣。極性基團的離子特性導致了 YXAC1HX 表面膜結合濕氣的高導電性。除了抗靜電劑的化學成份，加工方法和環境溫度也會影響抗靜電劑起作用的速度和效果。塑料的玻璃化溫度也對抗靜電效果有影響。對那些玻璃化溫度遠高於室溫的聚合物而言，在製品的使用周期內抗靜電劑並不會連續不斷的遷移。

The effect of antistatic agents basically depends on the molecular structure, which determines important properties of antistatic agents such as polarity and mobility. The long carbon chain in the YXAC1HX molecule provides mobility towards polar plastics, while its polar groups provide hygroscopicity, i.e. it binds the moisture necessary to form a conductive film. The ionic nature of the polar groups results in the high conductivity of the YXAC1HX surface film in combination with moisture. In addition to the chemical composition of the antistatic agent, processing methods and ambient temperature will also affect the speed and effectiveness of the antistatic agent. The glass transition temperature of plastics also has an impact on the antistatic effect. For polymers with glass transition temperatures well above room temperature, the antistatic agent will not migrate continuously over the life of the product.

■是一種烷基磺酸鈉，可為熱塑性塑膠提供高效的抗靜電性效能。

It is a sodium alkyl sulfonate that provides highly effective antistatic properties to thermoplastics.

■具有出色的效率並提供長期的抗靜電效果。

Has excellent efficiency and provides long-term antistatic effect.

■添加製塑膠中，以減少靜電電荷累積所產生負面影響。如印刷油墨的灰塵吸引、靜電放電和飛濺。在熱塑性塑膠的加工過程中，可用作促進流動的潤滑劑和脫模劑。

Added to plastics to reduce the negative effects of electrostatic charge accumulation. Examples include dust attraction, electrostatic discharge and spatter from printing ink. In the processing of thermoplastic plastics, it can be used as a lubricant and release agent to promote flow.

■適用塑料種類非常廣。

The applicable plastic types are very wide.

■顯著塑料製品表面電阻，使其達到 $10^8 \sim 10^9 \Omega$ ，抗靜電高效持久、與樹脂相容性好，並不影響製品的加工和使用性能。

Significantly improves the surface resistance of plastic products, making it reach $10^8 \sim 10^9 \Omega$. It is highly effective and durable in antistatic, has good compatibility with resin, and does not affect product processing and performance.



物理特性 Physical Properties

相關特性 Related features	相關資訊與數據 Related information and data
顏色 color	淡黃色 light yellow
有效物質含量 Effective substance quantity	≥99%
烷基磺酸鈉 Alkane sulfonate	≥ 90 %
十二烷基苯磺酸鈉 Sodium sulfonate	ca. 5 %
熔點 melting point	50 °C
胺值 Amine value	60 ~ 80mgKOH/ 克 g
分解溫度 Decomposition temperature:	above 300 °C

推薦應用之塑料與建議添加%數 Recommended application plastics and recommended additive percentages

塑料	建議添加%數	塑料	建議添加%數
LDPE	1.5~2.5	PA6	1.5~2.5
LLDPE	1.5~2.5	PA6+GF/MD	2~3
HDPE	1.5~2.5	PA66	2~3
EVA	1.5~2.5	PA66+GF/MD	2~3
PP	1.5~2.5	PA12	2~3
PP+GF/MD	2~3	POM	2~3
ABS	2~3	PET	2~3
PS	2~3	PBT	2~3
AS	2~3	PC	2~3
TPV	1.5~2.5	PC+GF/MD	3~4
PVC	1.5~2.5	PC/ABS	2~3
TPE	1.5~2.5	PC/ABS+GF/MD	2~3
TPEE	1.5~2.5	PC/PBT	2~3
TPU	1.5~2.5	PC/PET	2~3

■ 塑料建議用量，可以依需求調整適當的用量配比±0.5%。

The recommended dosage of plastic can be adjusted to the appropriate dosage ratio ±0.5% according to needs.

■ 必須注意 YAC1HX 添加濃度超過 0.3% 時，會使透明塑料產生霧化現象，若要求阻抗低，添加 YAC1HX%數超過 1%，將無法滿足透明的需求。若無要求塑料之透明性，添加%數則可不用限制。

It must be noted that when the concentration of YAC1HX added exceeds 0.3%, the transparent plastic will atomize. If low impedance is required, adding YAC1HX in a concentration exceeding 1% will not meet the need for transparency. If there is no requirement for the transparency of the plastic, there is no restriction on the adding percentage.

成型加工使用模式 Molding processing usage mode	射出成型 Injection Molding	押出成型 Extrusion molding	塗佈、噴灑 Coating, spraying
	薄膜吹出 Film blowing	浸漬 maceration	



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包裝 Package

外層牛皮紙+PP 編織袋、內層鋁箔包裝袋。防潮、抗光包裝袋 25KG。

Outer kraft paper + PP woven bag, inner aluminum foil packaging bag. Moisture-proof, anti-light packaging bag 25KG.

儲存方式 Storage method

防止水氣、潮濕，儲存於密閉環境，避免陽光直射。

Prevent moisture and humidity, store in a closed environment, avoid direct sunlight.

◆警示◆

由於 YXAC1HX 的吸濕性快、高，儲存時應注意避免潮氣影響，未用完的容器應及時密封、氣密。YXAC1HX 勿暴露、開放在空氣中，以免顆粒沾黏，造成使用上的不便。

Since YXAC1HX has fast and high hygroscopicity, care should be taken to avoid the influence of moisture during storage. Unused containers should be sealed and airtight in time. Do not expose YXAC1HX to the air to prevent particles from sticking and causing inconvenience during use.

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