

技術資料表
Technical Data Sheet

8WTYPE

熱塑性聚烯烴 TPO，高耐用、抗輻射、高效益彈性體塑料

Thermoplastic polyolefin TPO, highly durable, radiation-resistant, high-efficiency elastomeric plastic

樹脂 Resin	TPO Thermoplastic polyolefins
規格 Grade	8W160A-A1
來源 source	上禾伸企業

描述 Description

TPO 熱塑性聚烯烴彈性體，是一種獨特的 TPE 類型，它結合了橡膠的彈性和塑料加工便利的優點。也一種多功能材料，以其耐用性和柔韌性而聞名。它是通過將聚丙烯橡膠和乙烯-丙烯混合製成的，形成一種結合了塑膠強度和橡膠彈性的混合物，具有優異的耐候、耐油、耐臭氧和耐紫外線性能。

硬度範圍可達 50A~60D，自然色呈現半透明的顏色。可回收、不含重金屬、可塑劑，通過、符合 ROHS、REACH，綠色環保塑料。

TPO, or thermoplastic polyolefin elastomer, is a unique type of TPE that combines the elasticity of rubber with the processing convenience of plastic. It's a versatile material known for its durability and flexibility. It's made by blending polypropylene rubber with ethylene-propylene, creating a mixture that combines the strength of plastic with the elasticity of rubber, offering excellent resistance to weathering, oil, ozone, and UV rays.

The hardness range is 50A~60D, and the natural color is translucent. Recyclable, free of heavy metals and plasticizers, compliant with ROHS and REACH, and environmentally friendly plastic.

■高耐用性，其具有很強的抗衝擊、撕裂和抗穿刺性，確保在苛刻的應用中，具有較長的使用壽命。

High durability with strong resistance to impact, tear and puncture, ensuring long service life in demanding applications.

■對紫外線輻射、極端溫度和特殊化學品的耐受性，使其成為戶外使用的理想選擇，從汽車零件到屋頂材料，以及戶外用品，都能適用。高耐低溫性能，-40°C 依然維持彈性特性。

Its resistance to UV radiation, extreme temperatures, and specialized chemicals makes it an ideal choice for outdoor use, from automotive parts to roofing materials and outdoor products. It also has high low-temperature resistance, maintaining its elastic properties at -40°C.

■高效益的塑料，他是一種具有較低成本，高效益的解決方案，因為它的生產成本通常低於具有類似性能的其他塑料。

High-performance plastics are a lower-cost, high-performance solution because their production costs are generally lower than other plastics with similar properties.

■比重輕、易加工，與 PE、PP 塑料相容，可射出包覆。適用一般塑膠射出、押出成型，低耗能，可取代橡膠。

Lightweight and easy to process, it is compatible with PE and PP plastics and can be injection-coated. Suitable for general plastic injection and extrusion molding, it uses low energy and can replace rubber.

應用 Applications

建築用品 Building Supplies	醫療用品 medical supplies	汽車零件 car parts
電子用品 electronics	工業用品 Industrial Supplies	食品用品 food supplies
潛水裝備 diving equipment	運動器材 Sports Equipment	傢俱用品 Household items
3C 電子業 3C Electronics Industry	塑料改質增韌劑 Plastic modification enhancer	事務機器 transaction machine

成型模式

Forming mode

射出成型

Injection Molding

押出成型

Extrusion molding

特性 Properties

項目 Project	測試標準 Testing standards	單位 Unit	標準數值 Typical Value
硬度 Rockwell Hardness	ASTM D-2240	Shore A	60±2
比重 Specific Gravity	ASTM D-792	g/cm ³	0.89
流動指數 Melt Flow Index	ASTM D-1238	g/10min 190°C×2.16KG	5.0

機械特性 Mechanical properties

拉伸強度 Tensile Strength	ASTM D-412	Kg/cm ²	55
伸長率 Elongation at Break		%	700
撕裂強度 Tear Strength	ASTM D-624	Kg/cm ^{A2}	20
反撥彈性 Washback Elasticity	CNS K1392	%	63
耐熱性 Heat Resistance	W-O-M63°C 500hrs	% TB/EB	90/95
脆化溫度 Brittle Transition Temperature	ASTM D-746	°C	-50

其他屬性 Miscellaneous Properties

顏色 Color		White
形態 Product Form		Pellets
燃燒性 Flammability	UL 94	HB

成型條件 Molding conditions

烘乾溫度 Drying temp. °C	80	烘乾時間 Drying time H	3~4
進料區溫度 Feed zone temp. °C	175~195	壓縮區溫度 Compression zone temp. °C	180~200
計量區溫度 Metering zone temp. °C	180~210	噴嘴溫度 Nozzle temp. °C	180~220
模具溫度 Mold temp. °C	**	射出壓力 Injection pressure Kg/cm ²	**

*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.