



技術資料表 Technical Data Sheet

6WTYPE

TPSIV 熱塑性矽膠硫化彈性體，絲滑低黏，高延伸率，低氣味，耐高、低溫性佳

TPSIV thermoplastic silicone vulcanized elastomer is silky smooth with low viscosity, high elongation, low odor, and excellent resistance to high and low temperatures.

樹脂 Resin	TPSIV Themo Plastic Silicone Vulcanizate
規格 Grade	6W150A-A1
來源 source	上禾伸企業 SHANG HE SHEN ENTERPRISE CO., Ltd.

描述 Description

TPSIV 熱塑性矽橡膠，或稱為 TPSV，動態硫化技術，將充分硫化的矽橡膠微粒（島相/分散相），均勻分散在熱塑性 TPE 樹脂中，形成的一種穩定結構。

TPSIV thermoplastic silicone rubber, also known as TPSV, is a dynamic vulcanization technology that uniformly disperses fully vulcanized silicone rubber particles (island phase/dispersed phase) in thermoplastic TPE resin to form a stable structure.

■獨特絲滑的觸感，表面細膩不黏手，抗髒污、不易沾灰塵，特別適合與皮膚接觸。

With a uniquely silky smooth feel, a delicate and non-sticky surface, it is resistant to dirt and dust, making it especially suitable for skin contact.

■卓越的化學與環境耐性，具備優良的抗高低溫、抗水解、耐候性，以及出色的耐化學品性。

It exhibits excellent chemical and environmental resistance, with superior resistance to high and low temperatures, hydrolysis, and weathering, as well as outstanding chemical resistance.

■優異的機械與物理性能，相比一般 TPE(TPS)彈性體，它擁有更好的延伸性、抗撕裂強度，高溫下的低拉伸性，有較高的耐熱性能，與低壓縮永久變形，以及較佳的耐磨損與抗刮擦性。

With superior mechanical and physical properties, compared to general TPE (TPS) elastomers, it has better elongation, tear strength, low tensile strength at high temperatures, high heat resistance, low compression set, and better wear and scratch resistance.

■良好的射出包覆性，能與 PC、ABS 塑料等極性塑膠原料，進行非常穩固的粘接包覆成型。

It has excellent injection molding properties and can be bonded and molded very firmly with polar plastic materials such as PC and ABS plastics.

■綠色環保彈性體塑料，材料不含副產物，低氣味，且能夠 100% 回收循環再利用。

This green and environmentally friendly elastomer plastic contains no byproducts, has a low odor, and is 100% recyclable.

■比重輕、易加工，符合 RoHS、REACH、PAHs 規範。

It is lightweight, easy to process, and complies with RoHS, REACH, and PAHs standards.



應用 Applications

- ◆運動休閒：各類運動器材手柄、穿戴式裝置配件。

Sports and leisure: Handles for various sports equipment and wearable device accessories.

- ◆美妝與食品包裝：化妝品瓶蓋外殼、軟質刷頭、廚房用品手柄。

Cosmetic and food packaging: cosmetic bottle caps, soft brush heads, and kitchenware handles.

- ◆消費性電子：智慧手環/手錶錶帶、手機保護殼、藍牙耳機耳套等軟質包膠。

Consumer electronics: Soft rubber coating for smart bracelet/watch straps, mobile phone cases, Bluetooth earphone ear tips, etc.

- ◆汽車工業：車內按鍵、內飾包膠、密封件與防塵罩。

Automotive industry: In-vehicle buttons, interior trim, sealants, and dust covers.

成型模式

射出成型

Forming mode

Injection Molding

特性 Properties

項目	單位	測試標準	標準數值
Project	Unit	Testing standards	Typical Value
硬度 Rockwell Hardness	Shore A	ASTM D-2240	50±2
比重 Specific Gravity	g/cm ³	ASTM D-792	0.96
機械特性 Mechanical properties			
拉伸強度 Tensile Strength	Kg/cm ²	ASTM D-412	20
伸長率 Elongation at Break	%		650
撕裂強度 Tear Strength	Kg/cm	ASTM D-624	14
抗高溫老化 High Temperature Aging	% TB/EB	ASTM-D573	90/90
反撥彈性 Washback Elasticity	%	CNS K1392	65
耐熱性 Heat Resistance	% TB/EB	W-O-M63°C 500hrs	95/95
脆化溫度 Brittle Transition Temperature	°C	ASTM D-746	-65

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	70~85	烘乾時間 Drying time H	2~4
進料區溫度 Feed zone temp. °C	170~190	壓縮區溫度 Compression zone temp. °C	175~195
計量區溫度 Metering zone temp. °C	180~200	噴嘴溫度 Nozzle temp. °C	180~205
模具溫度 Mold temp. °C	**	射出壓力 Injection pressure Kg/ cm ²	**

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