

SANTOPRENE® 121-50M100

A soft, black, UV resistant thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. This material combines good physical properties and chemical resistance for use in difficult injection molding applications. This grade of Santoprene® TPV is shear-dependent and can be processed on conventional thermoplastics equipment for injection molding. It is polyolefin based and recyclable within the manufacturing stream.

Key Features

- Designed for fast, easy injection molding, especially for complex part geometries
- Used in sealing applications
- Recommended for applications requiring improved part surface appearance
- Designed to be injected at lower molding temperatures or at lower injection pressures
- UL listed: file #QMFZ2.E80017, Plastics - Component; file #QMFZ8.E80017, Plastics Certified For Canada - Component

Typical mechanical properties

Stress at 100% elongation	1.8 MPa	ISO 527-1/-2 or ISO 37
Stress at break	4.39 MPa	ISO 527-1/-2 or ISO 37
Elongation at break	465 %	ISO 527-1/-2 or ISO 37
Shear Modulus	2.99 MPa	ISO 6721
Brittleness Temperature	-60 °C	ASTM D 746
Low temperature brittleness	-60 °C	ISO 812
Shore A hardness, 15s	56	ISO 48-4 / ISO 868
Shore A hardness change, after ageing		ISO 48-4 / ISO 868
Compression set at 70°C, 24h	31 %	ISO 815
Compression Set, 125°C, 70h	42 %	ISO 815
Initial Tear Resist., Die C	15 kN/m	ISO 34-1

Flammability

Burning Behav. at thickness h	HB class	UL 94
Thickness tested	1.1 mm	UL 94
UL recognition	yes	UL 94

Other properties

Density	915 kg/m ³	ISO 1183
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Injection

Drying Temperature	82 °C	
Drying Time, Dehumidified Dryer	3 h	
Processing Moisture Content	0.08 %	
Max. regrind level	20 %	
Melt Temperature Optimum	215 °C	Internal
Max. mould temperature	10 - 52 °C	
Vent depth	25 µm	

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Back pressure
Injection speed

0.345 - 0.689 MPa
fast

Processing Texts

Processing Notes

Desiccant drying for 3 hours at 80 °C (180 °F) is recommended. Santoprene® TPV has a wide temperature processing window from 175 to 230 °C (350 to 450 °F) and is incompatible with acetal and PVC.

Other Approvals

Other Approvals

OEM	Specification	Additional Information
Stellantis - Chrysler	MS-AR-100 AMV	
GM	GMW15812, Type 4M	
Stellantis - FCA Group	55248/02	EMP-50
Li Auto	Q/LiA5310057	2021 (V2)
Mercedes-Benz Group (Daimler)	DBL 5562	
Renault	FRM 18-27-082 /---	
MAN	M3236 A5	
Hyundai	MS220-05, Type K	
VW Group	TL 526 22	MD03
VW Group	VW50123	

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