SANTOPRENE® 101-80

A soft, black, versatile thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. This material combines good physical properties and chemical resistance for use in a wide range of applications. This grade of Santoprene® TPV is shear-dependent and can be processed on conventional thermoplastics equipment for injection molding, extrusion, blow molding, thermoforming or vacuum forming. It is polyolefin based and recyclable within the manufacturing stream.

Key Features

- UL listed: file #QMFZ2.E80017, Plastics - Component; file #QMFZ8.E80017, Plastics Certified For Canada - Component; file #QMTT2.E86313, Polymeric Materials for Use in Wire, Cable and Flexible Lighting Products - Component
- Recommended for applications requiring excellent flex fatigue resistance
- Excellent ozone resistance

Typical mechanical properties

Stress at 100% elongation	4.61	MPa	ISO 527-1/-2 or ISO 37
Stress at break	10.4	MPa	ISO 527-1/-2 or ISO 37
Elongation at break	526	%	ISO 527-1/-2 or ISO 37
Shear Modulus	18.9	MPa	ISO 6721
Brittleness Temperature	-60	°C	ASTM D 746
Low temperature brittleness	-60	°C	ISO 812
Shore A hardness, 15s	87		ISO 48-4 / ISO 868
Compression set at 70°C, 24h	36	%	ISO 815
Tear strength, normal	33	kN/m	ISO 34-1

Thermal properties

RTI, electrical, 1.5mm	90	°C	UL 746B
RTI, strength, 1.5mm	90	°C	UL 746B
RTI, strength, 3mm	95	°C	UL 746B

Flammability

Hot Wire Ignition, 1.5mm	PLC 3	s	UL 746A
Hot Wire Ignition, 3mm	PLC 2	s	UL 746A

Electrical properties

Comparative tracking index	PLC 0	PLC	UL 746A
High Voltage Arc Tracking Rate	PLC 1	mm/min	UL 746A

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Other properties

Density	960	kg/m³	ISO 1183

Injection

Drying Temperature	82	°C	
Drying Time, Dehumidified Dryer	3	h	
Processing Moisture Content	0.08	%	
Melt Temperature Optimum	215	°C	Internal
Max. mould temperature	10 - 52	°C	
Injection speed	fast		

Characteristics

Electrical / Electronic	RoHS / UL QMFZ2, Canada UL QMFZ8, Wire & Cable UL QMTT2

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 DGN	
Ford	WSD-M2D381-A1	
GM	GMW15813, Type 7	
Stellantis - FCA Group	EMP90	55248_02
Mercedes-Benz Group (Daimler)	DBL 5562	
Renault	FRM 18-27-056 /---	
Renault	FRM 18-27--703 /---	
Renault	UB16b	PMR2021
Hyundai	MS220-05, Type D	
VW Group	VW50123	

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