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SANTOPRENE® 101-73

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
- Recommended for applications requiring excellent flex fatigue resistance
- Excellent ozone resistance

Typical mechanical properties

Stress at 100% elongation	3.44	MPa	ISO 527-1/-2 or ISO 37
Stress at break	7.98	MPa	ISO 527-1/-2 or ISO 37
Elongation at break	478	%	ISO 527-1/-2 or ISO 37
Shear Modulus	11.1	MPa	ISO 6721
Brittleness Temperature	-60	°C	ASTM D 746
Low temperature brittleness	-60	°C	ISO 812
Shore A hardness, 15s	78		ISO 48-4 / ISO 868
Shore A hardness change, after ageing	1.7		ISO 48-4 / ISO 868
Compression set at 70°C, 24h	27	%	ISO 815
Compression Set, 125°C, 70h	41	%	ISO 815
Tear strength, normal	25	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

Burning Behav. at thickness h	HB	class	UL 94
Thickness tested	3	mm	UL 94
UL recognition	yes		UL 94
Hot Wire Ignition, 1.5mm	PLC 3	s	UL 746A
Hot Wire Ignition, 3mm	PLC 3	s	UL 746A

Electrical properties

Comparative tracking index	PLC 0	PLC	UL 746A
Electric Strength, Short Time, 2mm	27	kV/mm	ASTM D 149
High Amperage Arc Ignition Category, 1.5 mm	PLC 0	class	UL 746A
High Voltage Arc Tracking Rate	PLC 1	mm/min	UL 746A

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Other properties

Density	970	kg/m³	ISO 1183

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	
Back pressure	0.345 - 0.689	MPa	
Injection speed	fast		

Extrusion

Drying Temperature	82	°C
Drying Time, Dehumidified Dryer	3	h
Melt Temperature Range	202	°C

Characteristics

Electrical / Electronic	RoHS / UL QMFZ2, Canada UL QMFZ8

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 CGN	
Ford	WSD-M2D380-A1	
GM	GMW15813, Type 6	
Fiat Group	55248-02 EMP80	
Mercedes-Benz Group (Daimler)	DBL 5562	
Renault	FRM 18-27-021 /---	
MAN	M3236 A7	

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Hyundai	MS220-05, Type C	
Hyundai	MS220-31, Type A2	
VW Group	VW50123	

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