

SANTOPRENE® 111-45

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 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

- Recommended for applications requiring excellent flex fatigue resistance
- Excellent ozone resistance
- UL listed: file #QMFZ2.E80017, Plastics - Component; file #QMFZ8.E80017, Plastics Certified For Canada - Component
- Used in sealing applications

Typical mechanical properties

Stress at 100% elongation	1.4 MPa	ISO 527-1/-2 or ISO 37
Stress at break	3.5 MPa	ISO 527-1/-2 or ISO 37
Elongation at break	340 %	ISO 527-1/-2 or ISO 37
Shear Modulus	2.17 MPa	ISO 6721
Brittleness Temperature	-62 °C	ASTM D 746
Low temperature brittleness	-62 °C	ISO 812
Shore A hardness, 15s	49	ISO 48-4 / ISO 868
Shore A hardness change, after ageing	1	ISO 48-4 / ISO 868
Compression set at 23 °C, 24h	11 %	ISO 815
Compression Set, 125 °C, 70h	35 %	ISO 815

Flammability

Burning Behav. at thickness h	HB class	UL 94
Thickness tested	1 mm	UL 94
UL recognition	yes	UL 94

Electrical properties

Electric Strength, Short Time, 2mm	27 kV/mm	ASTM D 149
------------------------------------	----------	------------

Other properties

Density	960 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	

SANTOPRENE® 111-45

Vent depth	25 µm
Back pressure	0.345 - 0.689 MPa
Injection speed	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. An SPI/SPE #3 finish is recommended (do not polish).

Other Approvals

Other Approvals

OEM	Specification	Additional Information
Stellantis - Chrysler	MS-AR-100 BMN	
Ford	WSD-M2D378-A4	
Stellantis - FCA Group	55248/02	EMP-50
Mercedes-Benz Group (Daimler)	DBL 5562	
VW Group	VW50123	