Celanese
The chemistry inside innovation™

SANTOPRENE® 211-45

A soft, colorable, 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
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

Thermal properties

RTI, electrical, 1.5mm	100	°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

Electrical properties

Electric Strength, Short Time, 2mm	30	kV/mm	ASTM D 149

Other properties

Density	960	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	%
Max. mould temperature	10 - 52	°C
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	

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