SANTOPRENE® 201-64

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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 applications. This grade of Santoprene™ TPV is shear-dependent and can be processed on conventional thermoplastics equipment for injection molding, extrusion or blow molding. 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

Product information

Resin Identification	TPV	ISO 1043
Part Marking Code	>TPV<	ISO 11469

Typical mechanical properties

Tensile stress at 100% elongation, perpendicular	2.6	MPa	ISO 37
Stress at break, perpendicular	7	MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular	450	%	ISO 527-1/-2 or ISO 37
Brittleness Temperature	-60	°C	ASTM D 746
Shore A hardness, 15s	69		ISO 48-4 / ISO 868
Compression set, 70°C, 24h	18	%	ISO 815
Compression set, 125°C, 70h	44	%	ISO 815
Tear strength, normal	22	kN/m	ISO 34-1

Thermal properties

RTI, electrical, 1.5mm	100	°C	UL 746B
RTI, electrical, 3.0mm	100	°C	UL 746B
RTI, strength, 1.5mm	90	°C	UL 746B
RTI, strength, 3.0mm	95	°C	UL 746B

Specific Application Suitability

Continuous Upper Temperature Resistance, 1000h	135	°C	SAE J2236
Detergent resistance	f3		UL 749
Detergent resistance	f4		UL 2157

Flammability

Burning Behav. at 1.5mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.5	mm	IEC 60695-11-10
UL recognition	yes		UL 94
Burning Behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	1	mm	IEC 60695-11-10
UL recognition	yes		UL 94
Burning rate, Thickness 2 mm	20	mm/min	ISO 3795 (FMVSS 302)
Hot Wire Ignition, 1.5mm	PLC 2	s	UL 746A
Hot Wire Ignition, 3mm	PLC 2	s	UL 746A

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Electrical properties

Relative permittivity, 60Hz	2.3		IEC 62631-2-1
Arc Resistance Performance Level Category	PLC 6	class	UL 746B
Electric Strength, Short Time, 2mm	30	kV/mm	ASTM D 149
High Amperage Arc Ignition Category, 1.5 mm	PLC 0	class	UL 746A

Physical/Other properties

Density	970	kg/m³	ISO 1183

Injection

Max. regrind level	20	%
Back pressure	0.517	MPa

Extrusion

Drying Temperature	82	°C
Drying Time, Dehumidified Dryer	3	h
Melt Temperature Range	196	°C

Additional information

Processing Notes

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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.

Revised: 2024-03-25 Source: Celanese Materials Database