

SANTOPRENE® 8211-45

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A soft, colorable, non-hygroscopic thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. This material combines good physical properties and chemical resistance for use in difficult 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

- Non-hygroscopic product, requires little to no drying before processing.
- Neutral, easy coloring formulation.
- Recommended for applications requiring excellent ozone resistance.
- Used in sealing applications.
- Recommended for applications requiring excellent flex fatigue resistance.
- UL listed: file #QMFZ2.E80017, Plastics - Component; file #QMFZ8.E80017, Plastics Certified For Canada - Component.

Product information

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

Typical mechanical properties

Tensile stress at 100% elongation, perpendicular	1.5 MPa	ISO 37
Stress at break, perpendicular	3.6 MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular	410 %	ISO 527-1/-2 or ISO 37
Brittleness Temperature	-62 °C	ASTM D 746
Shore A hardness, 15s	49	ISO 48-4 / ISO 868
Compression set, 70°C, 24h	25 %	ISO 815

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

Flammability

Burning Behav. at thickness h	HB class	IEC 60695-11-10
Thickness tested	1.1 mm	IEC 60695-11-10
UL recognition	yes	UL 94

Physical/Other properties

Density	930 kg/m³	ISO 1183
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Injection

Processing Moisture Content	≤0.08 %
Max. regrind level	20 %
Melt Temperature Optimum	215 °C
Min. melt temperature	165 °C
Max. melt temperature	265 °C

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Mold Temperature Optimum	50 °C
Min. mould temperature	20 °C
Max. mould temperature	80 °C
Back pressure	0.517 MPa
Ejection temperature	84 °C

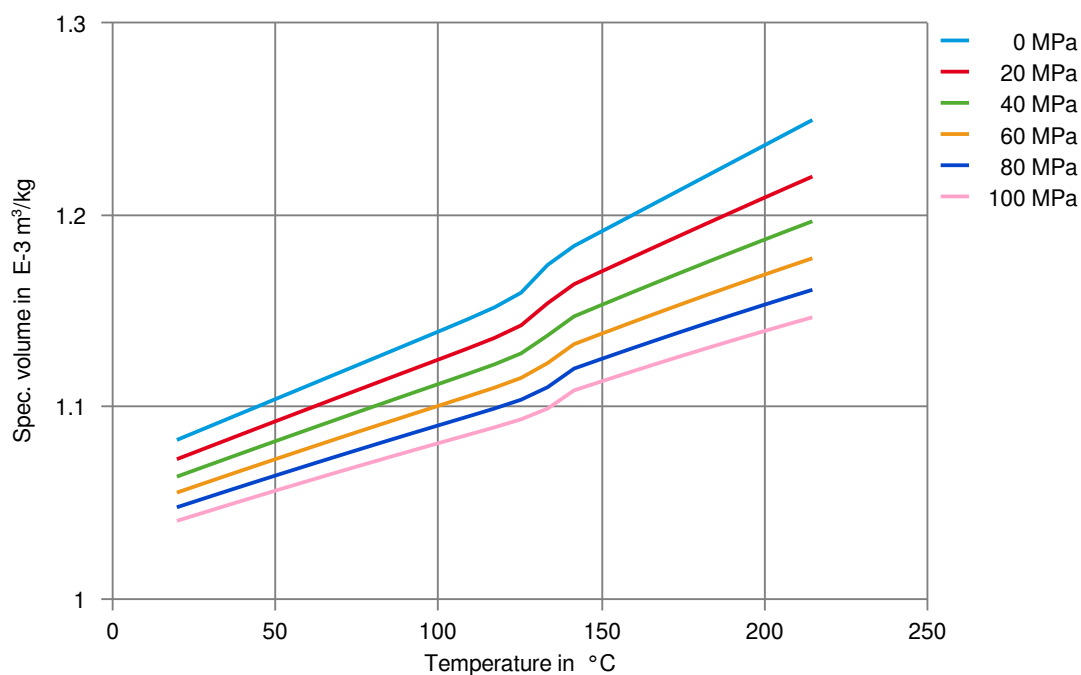
Additional information

Processing Notes

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Desiccant drying for 3 hours at 80 °C (180 °F) can be performed if desired. Santoprene® TPV has a wide temperature processing window from 175 to 230 °C (350 to 450 °F) and is incompatible with acetal and PVC.

Specific volume-temperature (pvT)



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