

SANTOPRENE® 121-85M100

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A soft, black, UV resistant 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 recycled within the manufacturing stream.

Key Features

- Used in applications for exterior trims and spoilers for injection molding
- Designed for fast, easy injection molding, especially for complex part geometries
- Used in sealing applications
- Recommended for applications requiring improved part surface appearance
- 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	5.36 MPa	ISO 37
Stress at break, perpendicular	7.28 MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular	390 %	ISO 527-1/-2 or ISO 37
Brittleness Temperature	-52 °C	ASTM D 746
Shore A hardness, 15s	89	ISO 48-4 / ISO 868
Compression set, 70 °C, 24h	49 %	ISO 815
Compression set, 125 °C, 70h	76 %	ISO 815
Tear strength, normal	33 kN/m	ISO 34-1

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	910 kg/m ³	ISO 1183
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Injection

Melt Temperature Optimum	215 °C
Min. melt temperature	165 °C
Max. melt temperature	265 °C
Mold Temperature Optimum	50 °C
Min. mould temperature	20 °C
Max. mould temperature	80 °C
Ejection temperature	92 °C

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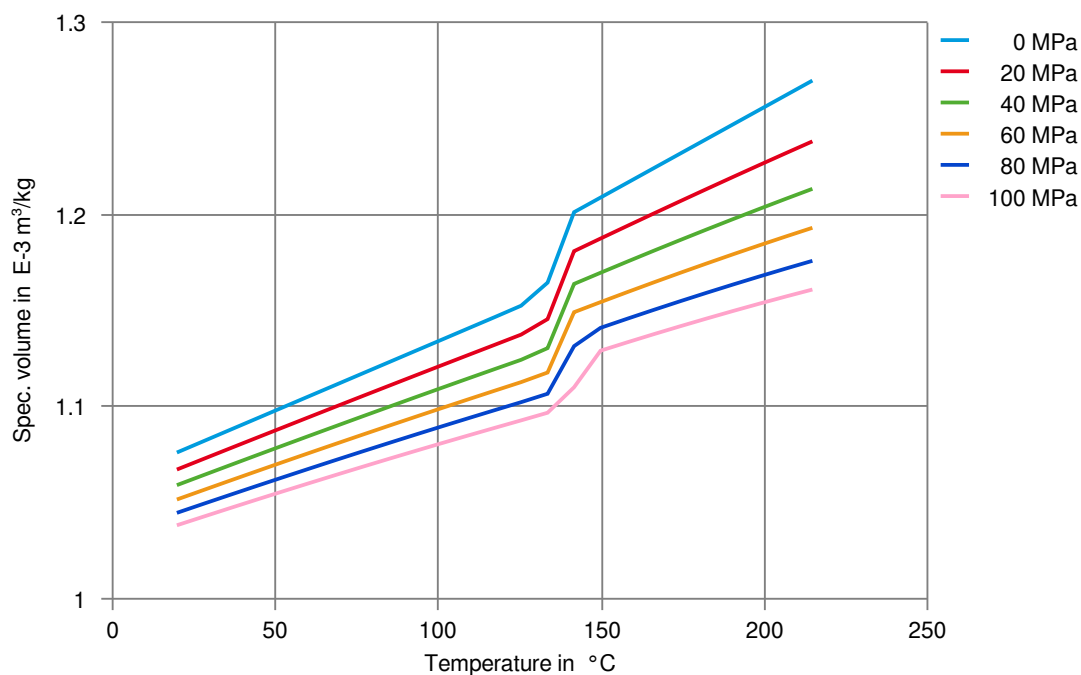
Additional information

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. For physical foaming, a specially modified thermoplastic extruder equipped with an adapted foaming agent dosing device is required. For mechanical foaming, a 30:1 extruder is recommended.

Specific volume-temperature (pvT)



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