

SANTOPRENE® 8221-70

SANTOPRENE®

A soft, colorable, UV resistant 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 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.
- Neutral, easy coloring formulation.
- Used in sealing applications.

Product information

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

Typical mechanical properties

Tensile stress at 100% elongation, perpendicular	2.9 MPa	ISO 527-1/-2 or ISO 37
Stress at break, perpendicular	6.8 MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular	600 %	ISO 527-1/-2 or ISO 37
Shore A hardness, 15s	75	ISO 48-4 / ISO 868
Compression set, 70°C, 24h	38 %	ISO 815
Compression set, 125°C, 70h	58 %	ISO 815

Thermal properties

RTI, electrical, 1.5mm	100 °C	UL 746B
RTI, electrical, 3.0mm	100 °C	UL 746B
RTI, strength, 1.5mm	85 °C	UL 746B
RTI, strength, 3.0mm	85 °C	UL 746B

Specific Application Suitability

Outdoor suitability	f1	UL 746C
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Flammability

Burning Behav. at 1.5mm nom. thickn.	HB class	IEC 60695-11-10
Thickness tested	1.6 mm	IEC 60695-11-10
UL recognition	yes	UL 94
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

Electrical properties

High Amperage Arc Ignition Category, 1.5 mm	PLC 1 class	UL 746A
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Physical/Other properties

Density	950 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 %
Min. mould temperature	24 °C
Max. mould temperature	52 °C
Back pressure	0.517 MPa

Extrusion

Melt Temperature Range	185 - 221 °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.