

SANTOPRENE[®] 241-55

SANTOPRENE®

A soft, colorable, specialty thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. It is designed for use in plumbing applications requiring potable water contact and also for food processing equipment. This grade of Santoprene® TPV is shear-dependent and can be processed on conventional thermoplastics equipment for injection molding or extrusion. It is polyolefin based and recyclable within the manufacturing stream.

Key Features

Certified by NSF to NSF/ANSI Standard 51: Food Equipment Materials - Plastics, materials and components used in food equipment.

- · Certified by NSF to NSF/ANSI Standard 61: Drinking Water System Components Health Effects.
- · UL listed: file #QMFZ2.E80017, Plastics Component; file #QMFZ8.E80017, Plastics Certified For Canada Component.
- Recommended for applications requiring excellent flex fatigue resistance.

Product information **Resin Identification** TPV ISO 1043 Part Marking Code >TPV< ISO 11469 Typical mechanical properties Tensile stress at 100% elongation, perpendicular 1.7 MPa **ISO 37** Stress at break, perpendicular 4.5 MPa ISO 527-1/-2 or ISO 37 Elongation at break, perpendicular 450 % ISO 527-1/-2 or ISO 37 Shore A hardness, 15s ISO 48-4 / ISO 868 59 Thermal properties 100 °C RTI, electrical, 1.5mm UI 746B 100 °C RTI, electrical, 3.0mm UL 746B 90 °C RTI, strength, 1.5mm UL 746B RTI, strength, 3.0mm 90 °C UL 746B 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 UL 94 ves IEC 60695-11-10 Burning Behav. at thickness h HB class Thickness tested IEC 60695-11-10 1 mm **UL** recognition yes UL 94 Hot Wire Ignition, 1.5mm PLC 2 s UL 746A Hot Wire Ignition, 3mm PLC 2 s UL 746A Electrical properties Arc Resistance Performance Level Category PLC 6 class UL 746B High Amperage Arc Ignition Category, 1.5 mm PLC 0 class UL 746A



ISO 1183

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Physical/Other properties

Density	960	kg/m ³
Injection		
Drying Temperature	82	°C
Drying Time, Dehumidified Dryer	3	h
Processing Moisture Content	≤0.08	%
Max. regrind level	20	%
Min. mould temperature	10	°C
Max. mould temperature	52	°C
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 $80 \degree C$ ($180 \degree F$) is recommended. Santoprene® TPV has a wide temperature processing window from 175 to $230 \degree C$ (350 to $450 \degree F$) and is incompatible with acetal and PVC.

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