

# 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 Part Marking Code	TPV >TPV<		ISO 1043 ISO 11469
•	711.13		100 11 100
Typical mechanical properties			
Tensile stress at 100% elongation, perpendicular	1.7	MPa	ISO 37
Stress at break, perpendicular		MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular	450	%	ISO 527-1/-2 or ISO 37
Shore A hardness, 15s	59		ISO 48-4 / ISO 868
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	90	°C	UL 746B
Flammability			
Burning Behav. at 1.5mm nom. thickn.	НВ	class	IEC 60695-11-10
Thickness tested	1.5	mm	IEC 60695-11-10
UL recognition	yes		UL 94
Burning Behav. at thickness h	НВ	class	IEC 60695-11-10
Thickness tested	1	mm	IEC 60695-11-10
UL recognition	yes		UL 94
Hot Wire Ignition, 1.5mm	PLC 2	-	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		UL 746A

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### Physical/Other properties

Density 960 kg/m<sup>3</sup> 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 Processing Notes

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.

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