

SANTOPRENE[®] 241-55

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.

| Typical mechanical properties | | | |
|--|-----------|--------|--|
| Stress at 100% elongation | | MPa | ISO 527-1/-2 or ISO 37 |
| Stress at break | | MPa | ISO 527-1/-2 or ISO 37 |
| Elongation at break Shore A hardness, 15s | 450 59 | % | ISO 527-1/-2 or ISO 37 ISO 48-4 / ISO 868 |
| Shore A hardness, 15s | 59 | | 130 48-47 130 808 |
| Thermal properties | | | |
| RTI, electrical, 1.5mm | 100 | °C | UL 746B |
| RTI, strength, 1.5mm | 90 | °C | UL 746B |
| | | | |
| Flammability | | | |
| Burning Behav. at thickness h | HB | class | UL 94 |
| Thickness tested | 3 | mm | UL 94 |
| UL recognition | yes | | UL 94 |
| Hot Wire Ignition, 1.5mm | PLC 2 | S | UL 746A |
| Electrical properties | | | |
| Comparative tracking index | PLC 0 | PLC | UL 746A |
| Arc Resistance Performance Level Category | PLC 6 | class | UL 746B |
| High Amperage Arc Ignition Category, 1.5 mm | PLC 0 | | UL 746A |
| High Voltage Arc Tracking Rate | PLC 3 | mm/min | UL 746A |
| Other properties | | | |
| Density | 960 | kg/m³ | 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 | % |
| Max. mould temperature | 10 - 52 | °C |
| Vent depth | 25 | μm |
| Back pressure | 0.345 - 0.689 | MPa |
| Injection speed | fast | |
| Extrusion | | |
| Drying Temperature | 82 | °C |
| Drying Time, Dehumidified Dryer | 3 | h |
| Melt Temperature Range | 196 | °C |
| | | |

Processing Texts

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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