

SANTOPRENE® 201-55

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A soft, colorable, versatile 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 extrusion. 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

- Recommended for applications requiring excellent flex fatigue resistance
- Excellent ozone resistance

Product information

| Resin Identification Part Marking Code | TPV >TPV< | ISO 1043 ISO 11469 |
|---|------------------|-----------------------------------|
| Typical mechanical properties | | |
| Tensile stress at 100% elongation, perpendicular Stress at break, perpendicular | 2.1 MP 5.2 MP | lSO 527-1/-2 or ISO 37 |
| Elongation at break, perpendicular Brittleness temperature | 400 % -60 °C | ISO 527-1/-2 or ISO 37 ISO 974 |
| Brittleness Temperature | -60 °C | |
| Shore A hardness, 15s | 59 | ISO 48-4 / ISO 868 |
| Compression set, 70°C, 24h | 22 % | ISO 815 |
| Compression set, 125°C, 70h | 38 % | ISO 815 |
| Tear strength, normal | 16 kN/ | /m ISO 34-1 |
| Thermal properties | | |
| RTI, electrical, 1.5mm | 100 °C | |
| RTI, electrical, 3.0mm | 100 °C | UL 746B |
| RTI, strength, 1.5mm | 90 °C | UL 746B |
| RTI, strength, 3.0mm | 100 °C | UL 746B |
| Specific Application Suitability | | |
| Continuous Upper Temperature Resistance, 1000h | 135 °C | SAE J2236 |
| Detergent resistance | f3 | UL 749 |
| Detergent resistance | f4 | UL 2157 |
| Flammability | | |
| Burning Behav. at 1.5mm nom. thickn. | HB clas | ss IEC 60695-11-10 |
| Thickness tested | 1.5 mm | |
| UL recognition | yes | UL 94 |
| Burning Behav. at thickness h | HB clas | |
| Thickness tested UL recognition | 1 mm | n IEC 60695-11-10 UL 94 |
| Hot Wire Ignition, 1.5mm | yes PLC 3 s | UL 746A |
| Hot Wire Ignition, 3mm | PLC 2 s | UL 746A |
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Electrical properties

| Relative permittivity, 60Hz | 2.3 | IEC 62631-2-1 |
|---|-------------|---------------|
| Arc Resistance Performance Level Category | PLC 6 class | UL 746B |
| Electric Strength, Short Time, 2mm | 29 kV/mm | ASTM D 149 |
| High Amperage Arc Ignition Category, 1.5 mm | PLC 0 class | UL 746A |

Physical/Other properties

| Density 970 kg/m ³ ISO 1183 |
|--|
|--|

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

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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