

SANTOPRENE® 111-45

A soft, black, 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 injection molding applications. This grade of Santoprene® TPV is shear-dependent and can be processed on conventional thermoplastics equipment for injection molding. It is polyolefin based and recyclable within the manufacturing stream.

Key Features

- · Recommended for applications requiring excellent flex fatigue resistance
- Excellent ozone resistance
- UL listed: file #QMFZ2.E80017, Plastics Component; file #QMFZ8.E80017, Plastics Certified For Canada -Component
- Used in sealing applications

Typical mechanical properties

| . Merean recent fer ele er eree | | | |
|---------------------------------------|---------|-------|------------------------|
| Stress at 100% elongation | 1.4 | MPa | ISO 527-1/-2 or ISO 37 |
| Stress at break | 3.5 | MPa | ISO 527-1/-2 or ISO 37 |
| Elongation at break | 340 | % | ISO 527-1/-2 or ISO 37 |
| Shear Modulus | | MPa | ISO 6721 |
| Brittleness Temperature | -62 | | ASTM D 746 |
| Low temperature brittleness | -62 | °C | ISO 812 |
| Shore A hardness, 15s | 49 | | ISO 48-4 / ISO 868 |
| Shore A hardness change, after ageing | 1 | | ISO 48-4 / ISO 868 |
| Compression set at 23°C, 24h | 11 | | ISO 815 |
| Compression Set, 125°C, 70h | 35 | % | ISO 815 |
| Flammability | | | |
| Burning Behav. at thickness h | HB | class | UL 94 |
| Thickness tested | 1 | mm | UL 94 |
| UL recognition | yes | | UL 94 |
| Electrical properties | | | |
| Electric Strength, Short Time, 2mm | 27 | kV/mm | ASTM D 149 |
| Other properties | | | |
| Density | 960 | kg/m³ | ISO 1183 |
| Injection | | | |
| Drying Temperature | 82 | °C | |
| Drying Time, Dehumidified Dryer | 3 | | |
| Processing Moisture Content | 0.08 | | |
| Max. regrind level | 20 | | |
| Melt Temperature Optimum | 215 | | Internal |
| Max. mould temperature | 10 - 52 | | |
| | | | |



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Vent depth Back pressure Injection speed

Processing Texts

Processing Notes

25 μm 0.345 - 0.689 MPa fast

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. An SPI/SPE #3 finish is recommended (do not polish).

Other Approvals

Other Approvals

| OEM | Specification | Additional Information |
|----------------------------------|---------------|------------------------|
| Stellantis - Chrysler | MS-AR-100 BMN | |
| Ford | WSD-M2D378-A4 | |
| Stellantis - FCA Group | 55248/02 | EMP-50 |
| Mercedes-Benz Group (Daimler) | DBL 5562 | |
| VW Group | VW50123 | |

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