

SANTOPRENE® 9101-80E

SANTOPRENE®

A black thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. This material is designed for coextrusion applications, particularly for the static foot of automotive weatherseal systems like glass run channels. This grade of Santoprene™ TPV is shear-dependent and can be processed on conventional thermoplastics equipment for extrusion or thermoforming. It is polyolefin based and recyclable within the manufacturing stream.

Key Features

- Recommended for coextruded applications not exposed to UV light.
- Recommended for applications requiring excellent ozone resistance.
- Designed to maximize run length with minimal build-up of material on screen packs or narrow sections of dies.

Product information

| | | |
|----------------------|-------|-----------|
| Resin Identification | TPV | ISO 1043 |
| Part Marking Code | >TPV< | ISO 11469 |

Typical mechanical properties

| | | |
|--|---------|------------------------|
| Tensile stress at 100% elongation, perpendicular | 3.4 MPa | ISO 37 |
| Tensile stress at break, perpendicular | 7 MPa | ISO 527-1/-2 or ISO 37 |
| Elongation at break, perpendicular | 670 % | ISO 527-1/-2 or ISO 37 |
| Shore A hardness, 15s | 80 | ISO 48-4 / ISO 868 |
| Compression set, 70°C, 24h | 48 % | ISO 815 |

Physical/Other properties

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

Extrusion

| | |
|---------------------------------|--------------|
| Drying Temperature | 82 °C |
| Drying Time, Dehumidified Dryer | 3 h |
| Melt Temperature Range | 177 - 204 °C |

Characteristics

| | |
|---------------|----------------------------|
| Processing | Coextrusion, Thermoforming |
| Delivery form | Pellets |

Additional information

Non Standard Data

| Property Name | Condition | Value | Unit | Standard |
|-----------------------------------|--------------|-------|------|----------|
| Change in Tensile Strength | 150 °C, 168h | -24.9 | % | ISO 188 |
| Change in Tensile Strain at Break | 150 °C, 168h | -23.4 | % | ISO 188 |
| Change in Shore A | 150 °C, 168h | 1 | - | ISO 188 |

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Hardness

Injection molding

Holding pressure should be about 50 to 75% of the actual injection pressure.

A high screw RPM (100 to 200) is recommended.

Back pressure is not always needed, however, a back pressure of 0.3 to 0.7 MPa may be used to ensure a homogeneous melt and maintain a consistent shot size.

A higher back pressure is normally employed when using masterbatches.

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. Do not exceed 15% drawdown.

Automotive

OEM

SAIC Motor

Stellantis

VW Group

VW Group

STANDARD

SMTC 5 320 024

55248_02 EMP80

VW 50123

VW TL 527 03