

SANTOPRENE® 121-80W175

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A soft, black, UV resistant thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. This material combines good physical properties and chemical resistance, and is designed for thin wall or complex profile extrusion applications. This grade of Santoprene® TPV is shear-dependent and can be processed on conventional thermoplastics equipment for extrusion, thermoforming or vacuum forming. It is polyolefin based and recyclable within the manufacturing stream.

Key Features

- Recommended for applications requiring excellent flex fatigue resistance
- Recommended for applications requiring excellent ozone resistance
- Designed for improved UV resistance
- Designed for extruding thin wall sections with excellent definition (down to 0.33 mm [0.013"] radius) and 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	4.43 MPa	ISO 527-1/-2 or ISO 37
Stress at break, perpendicular	9.13 MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular	470 %	ISO 527-1/-2 or ISO 37
Shore A hardness, 15s	85	ISO 48-4 / ISO 868
Compression set, 70 °C, 24h	39 %	ISO 815
Compression set, 125 °C, 70h	55 %	ISO 815
Initial Tear Resist., Die C	31 kN/m	ISO 34-1

Physical/Other properties

Density	955 kg/m ³	ISO 1183
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Additional information

Processing Notes

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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.