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SANTOPRENE® 163-40F500 (PRELIMINARY)

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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	9.7	MPa	ISO 37
Tensile stress at break, perpendicular	18	MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular	590	%	ISO 527-1/-2 or ISO 37
Shore D hardness, 15s	43		ISO 48-4 / ISO 868

Physical/Other properties

Density	940	kg/m³	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

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.

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The above data are preliminary and are subject to change as additional data are developed on subsequent lots.

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