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SANTOPRENE® 9103-42E

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A hard, 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 applications. This grade of Santoprene® TPV is shear-dependent and can be processed on conventional thermoplastics equipment for injection molding, extrusion, blow molding, thermoforming or vacuum forming. It is polyolefin based and recyclable within the manufacturing stream.

Key Features

- Excellent resistance to ozone.

Product information

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

Typical mechanical properties

Tensile stress at 100% elongation, perpendicular	8	MPa	ISO 37
Tensile stress at break, perpendicular	18	MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular	650	%	ISO 527-1/-2 or ISO 37
Shore D hardness, 15s	42		ISO 48-4 / ISO 868

Physical/Other properties

Density	946	kg/m³	ISO 1183

Characteristics

Processing	Injection Moulding, Extrusion, Blow Moulding, 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 incompatiable with acetal and PVC. For more information, please consult our Material Safety Data Sheet and Extrusion Guide.

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