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SANTOPRENE® 691-73W175

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A soft, colorable thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. This material is designed for thin wall, architectural glazing and sealing applications. 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 glazing and sealing applications.
- 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.
- Recommended for applications requiring excellent ozone resistance.
- Recommended for applications requiring excellent flex fatigue resistance.

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	8.3	MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular	465	%	ISO 527-1/-2 or ISO 37
Shore A hardness, 15s	78		ISO 48-4 / ISO 868

Physical/Other properties

Density	960	kg/m³	ISO 1183

Characteristics

Processing	Extrusion, Sheet Extrusion, 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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Revised: 2025-04-21 Source: Celanese Materials Database