

SANTOPRENE® 241-73W236

SANTOPRENE®

A soft, colorable, specialty thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. It is designed for use in plumbing applications in contact with potable water. 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

- Certified by NSF to NSF/ANSI Standard 61: Drinking Water System Components - Health Effects.
- Contains a stabilization system for protection against copper and other metal-catalyzed degradation.

Product information

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

Typical mechanical properties

Tensile stress at 100% elongation, perpendicular	3.6 MPa	ISO 37
Tensile stress at break, perpendicular	8.8 MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular	490 %	ISO 527-1/-2 or ISO 37
Shore A hardness, 15s	79	ISO 48-4 / ISO 868
Compression set, 23 °C	25 %	ISO 815
Time	168 h	

Physical/Other properties

Density	970 kg/m ³	ISO 1183
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Injection

Max. regrind level	20 %
Back pressure	0.517 MPa

Extrusion

Drying Temperature	82 °C
Drying Time, Dehumidified Dryer	3 h
Melt Temperature Range	202 °C

Characteristics

Processing	Injection Moulding, Multi Injection Moulding, Extrusion, Sheet Extrusion, Coextrusion, 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.
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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.