Celanese
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SANTOPRENE® 6SD001A30 NAT

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Product information

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

Typical mechanical properties

Tensile stress at 100% elongation, perpendicular	0.7	MPa	ISO 37
Stress at 300% elongation	1.5	MPa	ISO 527-1/-2 or ISO 37
Stress at break	1.9	MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular	422	%	ISO 527-1/-2 or ISO 37
Shore A hardness, 15s	28		ISO 48-4 / ISO 868
Compression set, 70 °C, 24h	27	%	ISO 815
Tear strength, normal	10	kN/m	ISO 34-1

Thermal properties

Coefficient of linear thermal expansion (CLTE), parallel	186[1]	E-6/K	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	329[1]	E-6/K	ISO 11359-1/-2

[1]: Temperature range: -50 °C to 120 °C

Physical/Other properties

Density	900	kg/m³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	80	°C
Drying Time, Dehumidified Dryer	≥3	h
Processing Moisture Content	≤0.08	%
Melt Temperature Optimum	185	°C
Min. melt temperature	180	°C
Max. melt temperature	190	°C
Mold Temperature Optimum	30	°C
Min. mould temperature	20	°C
Max. mould temperature	40	°C

Characteristics

Processing	Injection Moulding

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	

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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.

Santoprene® TPV has a relatively high melt viscosity at low shear rates. Viscosity decreases as the shear rate increases.
Increasing temperature has little effect on TPV melt viscosity. Smaller gates and higher shear rates keep melt viscosity low and improve melt flow. Please also refer to the injection molding guide.

Storage

Santoprene must be stored indoors in the original, unopened and undamaged packaging, away from direct sunlight, moisture and heat.

Revised: 2025-04-21 Source: Celanese Materials Database