Celanese
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SANTOPRENE® RC8008

SANTOPRENE®

A soft, colorable, non-hygroscopic 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 or blow molding. It is polyolefin based and recyclable within the manufacturing stream.

Key Features

- Non-hygroscopic product, requires little to no drying before processing.
- Neutral, easy coloring formulation.
- Recommended for applications requiring excellent ozone resistance.
- Used in sealing applications.
- 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	1.51	MPa	ISO 37
Tensile stress at break, perpendicular	5.3	MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular	498	%	ISO 527-1/-2 or ISO 37
Brittleness Temperature	-60	°C	ASTM D 746
Low temperature brittleness	-60	°C	ISO 812
Shore A hardness, 15s	53		ISO 48-4 / ISO 868

Physical/Other properties

Density	890	kg/m³	ISO 1183

Injection

Max. regrind level	20	%
Back pressure	0.517	MPa

Extrusion

Melt Temperature Range	179 - 216	°C

Characteristics

Processing	Injection Moulding, Multi Injection Moulding, Extrusion, Sheet Extrusion, Blow Moulding
Delivery form	Pellets

Additional information

Non Standard Data

Property Name	Condition	Value	Unit	Standard
Change in Tensile	150°C, 168h	-9	%	ISO 188

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Strength				
Change in Tensile Strain at Break	150 °C, 168h	-7	%	ISO 188
Change in Shore A Hardness	150 °C, 168h	1	-	ISO 188
Change in Mass	150 °C, 168h	-8	%	ISO 188

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) can be performed if desired.
Santoprene® TPV has a wide temperature processing window from 175 to 230 °C (350 to 450 °F) and is incompatible with acetal and PVC.