SANTOPRENE® 121-87

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A hard, black, UV resistant 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

- Recommended for applications requiring excellent flex fatigue resistance
- Excellent ozone resistance
- Designed for improved UV resistance

Product information

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

Typical mechanical properties

Tensile stress at 100% elongation, perpendicular	6.8	MPa	ISO 37
Stress at break, perpendicular	15.2	MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular	600	%	ISO 527-1/-2 or ISO 37
Brittleness Temperature	-58	°C	ASTM D 746
Shore A hardness, 15s	93		ISO 48-4 / ISO 868
Compression set, 23°C, 24h	28	%	ISO 815
Compression set, 125°C, 70h	65	%	ISO 815

Specific Application Suitability

Continuous Upper Temperature Resistance, 1000h	135	°C	SAE J2236

Flammability

Burning rate, Thickness 2 mm	26.1	mm/min	ISO 3795 (FMVSS 302)

Electrical properties

Relative permittivity, 60Hz	2.7		IEC 62631-2-1
Electric Strength, Short Time, 2mm	26	kV/mm	ASTM D 149

Physical/Other properties

Density	970	kg/m³	ISO 1183

Injection

Max. regrind level	20	%
Back pressure	0.517	MPa

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Extrusion

Drying Temperature	82 °C
Drying Time, Dehumidified Dryer	3 h
Melt Temperature Range	204 °C

Additional information

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.

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