

## ExxonMobil Santoprene® 121-87 Thermoplastic Elastomer

Category : Polymer , Thermoplastic , Elastomer, TPE , Thermoplastic Vulcanizate Elastomer (TPV)

### Material Notes:

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 or blow molding. It is polyolefin based and completely recyclable. Key Features: Recommended for applications requiring excellent flex fatigue resistance. Excellent ozone resistance. Designed for improved UV resistance. Although not NSF certified, this product has a Material Supplier Form on file with NSF to facilitate its evaluation for use in applications requiring NSF certification. EU and China RoHS compliant. Applications: Automotive- Interior Mat, Seals, Gaskets and Weather Seals. Uses: Automotive Applications Automotive Interior Trim Automotive Exterior Trim Automotive Under the Hood. Availability: Africa & Middle East, Europe, North America, Asia Pacific, Latin America and South America. Information provided by ExxonMobil Chemical

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_ExxonMobil-Santoprene-121-87-Thermoplastic-Elastomer.php](http://www.lookpolymers.com/polymer_ExxonMobil-Santoprene-121-87-Thermoplastic-Elastomer.php)

Physical Properties	Metric	English	Comments
Specific Gravity	0.970 g/cc	0.970 g/cc	23°C; ASTM D792

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	93	93	2 mm, 15 sec; ISO 868
	94	94	Air at 275°F, 1008 hr; ASTM D573
Tensile Strength at Break	14.71 MPa	2134 psi	Air at 275°F, 1008 hr; ASTM D573
	15.2 MPa	2200 psi	Across Flow; ASTM D412
Tensile Stress	6.80 MPa	986 psi	Across Flow; ASTM D412
	@Strain 100 %	@Strain 100 %	
Elongation at Break	490.2 %	490.2 %	Air at 275°F, 1008 hr; ASTM D573
	570 %	570 %	Across Flow; ASTM D412
Tear Strength	50.1 kN/m	286 pli	73°F, Die C; ASTM D624
Compression Set	28 %	28 %	73°F, 22 hr; ASTM D395
	65 %	65 %	257°F, 70 hr; ASTM D395

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	135 °C	275 °F	

Brittleness Temperature Thermal Properties	-57.8 °C Metric	-72.0 °F English	ASTM D746 Comments
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Electrical Properties	Metric	English	Comments
Dielectric Constant	2.7	2.7	1.98 mm; ASTM D150
Dielectric Strength	26.4 kV/mm	670 kV/in	2.03 mm; ASTM D149

Processing Properties	Metric	English	Comments
Processing Temperature	175 - 230 °C	347 - 446 °F	
Rear Barrel Temperature	182 °C	360 °F	
Middle Barrel Temperature	188 °C	370 °F	
Front Barrel Temperature	193 °C	380 °F	
Nozzle Temperature	199 - 235 °C	390 - 455 °F	
Die Temperature	210 °C	410 °F	Extrusion
Melt Temperature	204 °C	400 °F	Extrusion
	204 - 232 °C	400 - 450 °F	Processing
Mold Temperature	10.0 - 51.7 °C	50.0 - 125 °F	Processing
Drying Temperature	82.2 °C	180 °F	
Dry Time	3 hour	3 hour	
Moisture Content	0.080 %	0.080 %	
Back Pressure	0.345 - 0.689 MPa	50.0 - 100 psi	Processing
	5.00 - 20.0 MPa	725 - 2900 psi	Extrusion
Clamp Pressure	41.4 - 68.9 MPa	6000 - 10000 psi	
Vent Depth	0.00254 cm	0.00100 in	
Cushion	0.317 - 0.635 cm	0.125 - 0.250 in	
Screw Speed	100 - 200 rpm	100 - 200 rpm	

Descriptive Properties	Value	Comments
Color	Black	
Form	Pellets	
Injection Rate	Fast	

Descriptive Properties	Value	Comments
Screw Compression Ratio	2:1 - 2.5:1	
Screw L/D Ratio	16:1 - 20:1	

## Contact Songhan Plastic Technology Co.,Ltd.

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