

## ExxonMobil Santoprene® 8211-45 Thermoplastic Elastomer

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

### Material Notes:

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 difficult injection molding applications. This grade of Santoprene 8000 TPV is shear-dependent and can be processed on conventional thermoplastics equipment for injection molding. It is polyolefin based and completely recyclable. 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. UL listed: file #QMFZ2.E80017, Plastics - Component; file #QMFZ8.E80017, Plastics Certified For Canada - Component. 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 – Grips, HVAC Flapper Door Seals, Interior, Interior Mat, Weather Seals, Electronics, Floor Care, Kitchen Tools, Soft Touch Grips and Consumer Applications. Seals and Gaskets Uses: Automotive Applications, Cell Phones, Consumer Applications, Flexible Grips, Seals. Processing Method: Injection Molding and Multi Injection Molding. 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-8211-45-Thermoplastic-Elastomer.php](http://www.lookpolymers.com/polymer_ExxonMobil-Santoprene-8211-45-Thermoplastic-Elastomer.php)

Physical Properties	Metric	English	Comments
Specific Gravity	0.930 g/cc	0.930 g/cc	23°C; ASTM D792

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	45	45	.12 in; ASTM D2240
	47	47	Air at 302°F, 168 hr; ASTM D573
Tensile Strength at Break	3.23 MPa	468 psi	Air at 302°F, 168 hr; ASTM D573
	3.59 MPa	520 psi	Across Flow; ASTM D412
Tensile Strength, Ultimate	1.52 MPa	220 psi	Across Flow; ASTM D412
Tensile Stress	1.50 MPa	218 psi	Across Flow; ASTM D412
	@Strain 100 %	@Strain 100 %	
Elongation at Break	303.4 %	303.4 %	Air at 302°F, 168 hr; ASTM D471
	410 %	410 %	Across Flow; ASTM D412
Compression Set	25 %	25 %	158°F, 22 hr; ASTM D395

Thermal Properties	Metric	English	Comments
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Brittleness Temperature Thermal Properties	-62.2 °C Metric	-80.0 °F English	ASTM D746 Comments
UL RTI, Electrical	100 °C	212 °F	UL 746
UL RTI, Mechanical with Impact	90.0 °C @Thickness 1.10 mm	194 °F @Thickness 0.0433 in	UL 746
	95.0 °C @Thickness 3.00 mm	203 °F @Thickness 0.118 in	UL 746
Flammability, UL94	HB @Thickness 1.10 mm	HB @Thickness 0.0433 in	
	HB @Thickness 3.00 mm	HB @Thickness 0.118 in	

Processing Properties	Metric	English	Comments
Processing Temperature	175 - 230 °C	347 - 446 °F	
Rear Barrel Temperature	177 - 191 °C	351 - 376 °F	
Middle Barrel Temperature	179 - 193 °C	354 - 379 °F	
Front Barrel Temperature	185 - 199 °C	365 - 390 °F	
Nozzle Temperature	185 - 210 °C	365 - 410 °F	
Melt Temperature	143 - 216 °C	289 - 421 °F	Processing
Mold Temperature	10.0 - 51.7 °C	50.0 - 125 °F	
Moisture Content	0.080 %	0.080 %	
Back Pressure	0.345 - 0.689 MPa	50.0 - 100 psi	
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	Natural Color	
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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