

## ExxonMobil Santoprene® 221-87 Thermoplastic Elastomer (discontinued \*\*)

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

### Material Notes:

A hard, colorable, 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 conventional thermoplastics equipment for injection molding, extrusion or blow molding. It is polyolefin based and completely recyclable. Recommended for applications requiring excellent flex fatigue resistance. Excellent ozone resistance. Designed for improved UV resistance. Information provided by Advanced Elastomer Systems

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_ExxonMobil-Santoprene-221-87-Thermoplastic-Elastomer-nbspdiscontinued-.php](http://www.lookpolymers.com/polymer_ExxonMobil-Santoprene-221-87-Thermoplastic-Elastomer-nbspdiscontinued-.php)

Physical Properties	Metric	English	Comments
Specific Gravity	0.960 g/cc	0.960 g/cc	23°C; ASTM D792

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	87	87	.12 in; ASTM D2240
	90	90	Air at 275°F, 1008 hr; ASTM D573
Tensile Strength at Break	14.56 MPa	2112 psi	Air at 275°F, 1008 hr; ASTM D573
	15.2 MPa	2200 psi	Across Flow; ASTM D412
Tensile Strength, Ultimate	6.41 MPa	930 psi	Across Flow; ASTM D412
	499.2 %	499.2 %	Air at 275°F, 1008 hr; ASTM D573
Elongation at Break	640 %	640 %	Across Flow; ASTM D412
	50.1 kN/m	286 pli	73°F, Die C; ASTM D624
Compression Set	32 %	32 %	73°F, 22 hr; ASTM D395
	58 %	58 %	257°F, 70 hr; ASTM D395

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	135 °C	275 °F	
Brittleness Temperature	-56.1 °C	-69.0 °F	ASTM D746

Processing Properties	Metric	English	Comments
Processing Temperature	175 - 230 °C	347 - 446 °F	
Rear Barrel Temperature	182 °C	360 °F	

Processing Properties	Metric	English	Comments
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	Natural Color	
Form	Pellets	
Injection Rate	Fast	
Maximum Regrind %	20	
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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