

## ExxonMobil Santoprene® 221-80 Thermoplastic Elastomer (discontinued \*\*)

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

### Material Notes:

A soft, 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 on 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-221-80-Thermoplastic-Elastomer-nbspdiscontinued-.php](http://www.lookpolymers.com/polymer_ExxonMobil-Santoprene-221-80-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	80	80	.12 in; ASTM D2240
	87	87	Air at 275°F, 1008 hr; ASTM D573
Tensile Strength at Break	10.6 MPa	1540 psi	Across Flow; ASTM D412
	10.724 MPa	1555.4 psi	Air at 275°F, 1008 hr; ASTM D573
Tensile Strength, Ultimate	4.41 MPa	640 psi	Across Flow; ASTM D412
	456 %	456 %	Air at 275°F, 1008 hr; ASTM D573
Elongation at Break	570 %	570 %	Across Flow; ASTM D412
	35.1 kN/m	200 pli	73°F, Die C; ASTM D624
Compression Set	23 %	23 %	73°F, 22 hr; ASTM D395
	47 %	47 %	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

Electrical Properties	Metric	English	Comments
Dielectric Constant	2.4	2.4	ASTM D150
Dielectric Strength	35.4 kV/mm	900 kV/in	ASTM D149

Electrical Properties	Metric	English	Comments
Processing Properties	Metric	English	Comments
Processing Temperature	175 - 230 °C	347 - 446 °F	
Rear Barrel Temperature	177 °C	350 °F	
Middle Barrel Temperature	182 °C	360 °F	
Front Barrel Temperature	188 °C	370 °F	
Nozzle Temperature	193 - 232 °C	380 - 450 °F	
Die Temperature	204 °C	400 °F	Extrusion
Melt Temperature	202 °C	395 °F	Extrusion
	199 - 232 °C	390 - 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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