

Santoprene™ 8201-80

Thermoplastic Vulcanizate

ExxonMobil Chemical

Message:

It is a soft, colorable, non-hygroscopic thermoplastic vulcanized elastomer (TPV) in the thermoplastic elastomer (TPE) series. This material has good physical properties and chemical resistance at the same time, and is suitable for a wide range of fields. This brand of Shanduping TPV is a shear rate dependent product that can be processed on conventional thermoplastic injection molding, extrusion molding, blow molding, thermoforming or vacuum forming equipment. This is a polyolefin-based material that can be recycled in the production process.

General Information	
UL YellowCard	E80017-250559
Features	Low friction coefficient
	Lower die-out expansion
	Recyclable materials
	Controllable die-out expansion
	Cleanable
	Good melt strength
	Good coloring
	Ozone resistance
	Good chemical resistance
	Low or no water absorption
Uses	Kitchen utensils
	Home appliance components
	Fatigue elimination supplies
	Soft handle
	Mobile phone
	Stationery
Agency Ratings	UL QMFZ2
	UL QMFZ8
RoHS Compliance	RoHS compliance
UL File Number	E80017
Appearance	Natural color
Forms	Particle
Processing Method	Blow molding
	Multiple injection molding
	Co-extrusion molding
	Extrusion
	Extrusion blow molding

Sheet extrusion molding

Thermoforming

Profile extrusion molding

Vacuum forming

Injection blowing molding

Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	0.948	g/cm ³	ASTM D792
--	0.950	g/cm ³	ISO 1183
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shaw A, 15 seconds, 23°C, 2.00mm)	85		ISO 868
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress - Across Flow (100% Strain, 23°C)	4.20	MPa	ASTM D412, ISO 37
Tensile Strength - Across Flow (Break, 23°C)	9.80	MPa	ASTM D412, ISO 37
Tensile Elongation - Across Flow (Break, 23°C)	630	%	ASTM D412, ISO 37
Tear Strength - Across Flow			
23°C ¹	43.0	kN/m	ASTM D624
23°C ²	43	kN/m	ISO 34-1
Compression Set			
70°C, 22 hr ³	35	%	ASTM D395B
125°C, 70 hr ⁴	69	%	ASTM D395B
70°C, 22 hr ⁵	35	%	ISO 815
125°C, 70 hr ⁶	69	%	ISO 815
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air (150°C, 168 hr)	-6.0	%	ASTM D573, ISO 188
Change in Ultimate Elongation in Air (150°C, 168 hr)	-19	%	ASTM D573, ISO 188
Change in Durometer Hardness in Air (Shore A, 150°C, 168 hr)	1.0		ASTM D573, ISO 188
Change in Mass in Air (150°C, 168 hr)	-8.0	%	ASTM D573
Change in Mass in Air (150°C, 168 hr)	-8.0	%	ISO 188
Change in Tensile Strength			
23°C, 168 hr, in 15% sodium chloride	-3.0	%	ASTM D471, ISO 1817
23°C, 168 hr, in 50% sodium hydroxide	-3.0	%	ASTM D471, ISO 1817
23°C, 168 hr, in 98% sulfuric acid	-4.0	%	ASTM D471, ISO 1817
23°C, 168 hr, in IRM 903 oil	-15	%	ASTM D471, ISO 1817
23°C, 168 hr, in water	0.0	%	ASTM D471, ISO 1817

Change in Ultimate Elongation			ASTM D471, ISO 1817
23°C, 168 hr, in 15% sodium chloride	-4.0	%	ASTM D471, ISO 1817
23°C, 168 hr, in 50% sodium hydroxide	0.0	%	ASTM D471, ISO 1817
23°C, 168 hr, in 98% sulfuric acid	-6.0	%	ASTM D471, ISO 1817
23°C, 168 hr, in IRM 903 oil	-8.0	%	ASTM D471, ISO 1817
23°C, 168 hr, in water	15	%	ASTM D471, ISO 1817
Change in Durometer Hardness			
Support A, 23°C, 168 hr, in 15% sodium chloride	1.0		ASTM D471
Support A, 23°C, 168 hr, in 50% sodium hydroxide	2.0		ASTM D471
Support A, 23°C, 168 hr, in 98% sulfuric acid	2.0		ASTM D471
Support A, 23°C, 168 hr, in IRM 903 oil	-11		ASTM D471
Support A, 23°C, 168 hr, in water	-1.0		ASTM D471, ISO 1817
Support A, 23°C, 168 hr, in 15% sodium chloride	1.0		ISO 1817
Support A, 23°C, 168 hr, in 50% sodium hydroxide	2.0		ISO 1817
Support A, 23°C, 168 hr, in 98% sulfuric acid	2.0		ISO 1817
Support A, 23°C, 168 hr, in IRM 903 oil	-11		ISO 1817
Change in Mass			ASTM D471
23°C, 168 hr, in 15% sodium chloride	-1.0	%	ASTM D471
23°C, 168 hr, in 50% sodium hydroxide	-1.0	%	ASTM D471
23°C, 168 hr, in 98% sulfuric acid	0.0	%	ASTM D471
23°C, 168 hr, in IRM 903 oil	36	%	ASTM D471
23°C, 168 hr, in water	2.0	%	ASTM D471
Change in Mass			ISO 1817
23.0°C, 168 hr, in 15% sodium chloride	-1.0	%	ISO 1817
23.0°C, 168 hr, in 50% sodium hydroxide	-1.0	%	ISO 1817
23.0°C, 168 hr, in 98% sulfuric acid	0.0	%	ISO 1817
23.0°C, 168 hr, in water	2.0	%	ISO 1817
23.0°C, 168 hr, in IRM 903 oil	36	%	ISO 1817
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	-63.0	°C	ASTM D746, ISO 812
RTI Elec	100	°C	UL 746
RTI			UL 746
1.10 mm	90.0	°C	UL 746
1.60 mm	90.0	°C	UL 746
3.00 mm	95.0	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity			ASTM D257
23°C, 2.00 mm	5.5E+17	ohms · cm	ASTM D257

23°C, 3.20 mm	2.4E+16	ohms·cm	ASTM D257
Comparative Tracking Index (CTI)	PLC 0		UL 746
High Amp Arc Ignition (HAI)	PLC 0		UL 746
High Voltage Arc Resistance to Ignition (HVAR)	PLC 5		UL 746
Hot-wire Ignition (HWI)			UL 746
1.60 mm	PLC 3		UL 746
3.00 mm	PLC 2		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.10 mm	HB		UL 94
1.60 mm	HB		UL 94
3.00 mm	HB		UL 94
Additional Information			
如果适用,这是基于扇形浇口注塑成型的平板测试结果.拉伸强度,伸长率和拉伸应力沿垂直流动方向测定 - ISO 1 型,ASTM die C.25% 形变时的永久压缩变形.从埃克森美孚欧洲分支机构直接购买的所有产品都符合 REACH 法规. 对于埃克森美孚未进口至欧洲的产品,用户应自行评估其是否满足 REACH 法规.			
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Injection	Nominal Value	Unit	
Suggested Max Moisture	0.080	%	
Suggested Max Regrind	20	%	
Rear Temperature	185 - 199	°C	
Middle Temperature	191 - 204	°C	
Front Temperature	191 - 204	°C	
Nozzle Temperature	199 - 216	°C	
Processing (Melt) Temp	199 - 216	°C	
Mold Temperature	23.9 - 51.7	°C	
Injection Rate	Fast		
Back Pressure	0.345 - 0.689	MPa	
Screw Speed	100 - 200	rpm	
Clamp Tonnage	4.1 - 6.9	kN/cm ²	
Cushion	3.18 - 6.35	mm	
Screw L/D Ratio	16.0:1.0 to 20.0:1.0		
Screw Compression Ratio	2.0:1.0 to 2.5:1.0		
Vent Depth	0.025	mm	
Injection instructions			
Santoprene TPV与乙缩醛和PVC不相容.更多关于加工和模具设计的信息,请查阅我们的《注射成型指南》.			
Extrusion	Nominal Value	Unit	
Melt Temperature	191 - 224	°C	
Die Temperature	191 - 224	°C	
Extrusion instructions			
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NOTE	
1.	C mould
2.	Method B, right-angle specimen (cut)
3.	Type 1
4.	Type 1
5.	Type a
6.	Type a

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