ExxonMobil Santoprene® 8201-70 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 a wide range of applications. This grade of Santoprene 8000 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: 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:Consumer – Kitchen Tools, Soft Touch Grips and Consumer ApplicationsUses:Appliance ComponentsCell PhonesFlexible GripsKitchenwareStationary SuppliesStrain ReliefsProcessing Method: Blow Molding, Extrusion, Extrusion Blow Molding, Injection Molding, Multi Injection Molding, Profile Extrusion, Sheet ExtrusionAvailability: Africa & Middle East, Europe, North America, Asia Pacific, Latin America and South America Information provided by Advanced Elastomer Systems

Order this product through the following link:
http://www.lookpolymers.com/polymer_ExxonMobil-Santoprene-8201-70-Thermoplastic-Elastomer.php

Physical Properties	Metric	English	Comments
Specific Gravity	0.950 g/cc	0.950 g/cc	23°C; ASTM D792

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	70	70	.12 in; ASTM D2240
	72	72	Air at 302°F, 168 hr; ASTM D573
Tensile Strength at Break	6.84 MPa	992 psi	Air at 302°F, 168 hr; ASTM D573
	7.52 MPa	1090 psi	Across Flow; ASTM D412
Tensile Strength, Ultimate	2.90 MPa	420 psi	Across Flow; ASTM D412
Tensile Stress	2.90 MPa @Strain 100 %	421 psi @Strain 100 %	Across Flow; ASTM D412
Elongation at Break	524.4 %	524.4 %	Air at 302°F, 168 hr; ASTM D573
	570 %	570 %	Across Flow; ASTM D412
Tear Strength	26.1 kN/m	149 pli	73°C, Die C; ASTM D624
Compression Set	36 %	36 %	158°F, 22 hr; ASTM D395
	57 %	57 %	257°F, 70 hr; ASTM D395

Mechanical Properties	Metric	English	Comments
Thermal Properties	**Metric**	**English**	**Comments**
Brittleness Temperature	-81.0 °C	-114 °F	ASTM D746
UL RTI, Electrical	100 °C	212 °F	UL 746
UL RTI, Mechanical with Impact	90.0 °C @Thickness 27.9 mm	194 °F @Thickness 1.10 in	UL 746
	90.0 °C @Thickness 40.6 mm	194 °F @Thickness 1.60 in	UL 746
	95.0 °C @Thickness 76.2 mm	203 °F @Thickness 3.00 in	UL 746
Flammability, UL94	HB @Thickness 27.9 mm	HB @Thickness 1.10 in	
	HB @Thickness 40.6 mm	HB @Thickness 1.60 in	
	HB @Thickness 76.2 mm	HB @Thickness 3.00 in	

Processing Properties	Metric	English	Comments
Processing Temperature	175 - 230 °C	347 - 446 °F	
Rear Barrel Temperature	179 - 196 °C	355 - 385 °F	
Middle Barrel Temperature	185 - 199 °C	365 - 390 °F	
Front Barrel Temperature	191 - 204 °C	375 - 400 °F	
Nozzle Temperature	199 - 210 °C	390 - 410 °F	
Die Temperature	185 - 221 °C	365 - 430 °F	Extrusion
Melt Temperature	185 - 221 °C	365 - 430 °F	Extrusion
	199 - 216 °C	390 - 420 °F	Processing
	199 - 216 °C	390 - 420 °F	
Mold Temperature	23.9 - 51.7 °C	75.0 - 125 °F	
Moisture Content	0.080 %	0.080 %	
Back Pressure	0.345 - 0.689 MPa	50.0 - 100 psi	

Processing Properties	Metric	English	Comments
Shear Stress	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
Change in Mass in Air	-9.0%	150°C, 168 hr, ASTM D573
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	

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