

Advanced Elastomer Systems Santoprene® 251-85 Thermoplastic Rubber (discontinued **)

Category : Polymer , Thermoplastic , Elastomer, TPE , Thermoplastic Elastomer, Melt-Processible Rubber

Material Notes:

A colorable thermoplastic flame retardant elastomer with good fluid resistance, formulated to replace thermoset elastomers such as EPDM, polychloroprene, and chlorosulfonated polyethylene. It can be processed using injection molding, extrusion, blow molding or other melt processing techniques. Key Features: Dielectric constant 2.33, dielectric strength at 3.17 mm (125 mil), 19.6 kV/mm (500 v/mil); UL Yellow Card listed, UL 94 HB flame rating; Limiting oxygen index, 23.5%; Excellent flex fatigue resistance; Excellent ozone resistance. Additional processing comments: This thermoplastic rubber is a shear-dependent material that can be processed on conventional thermoplastic equipment for injection molding, extrusion, or blow molding. For extrusion, a general purpose screw with a compression ratio of 2.5 to 3.0 is recommended. Material can be recycled. SANTOPRENE rubber is incompatible with acetal and PVC. Values below are for injection molded plaques, side gated, 82.6 mm x 117.5 mm x 3.0 mm. Tensile properties measured across flow. Data provided by Advanced Elastomer Systems. Advanced Elastomer Systems is now a part of ExxonMobil. This grade was removed from the Advanced Elastomers Systems standard product line before the ExxonMobil acquisition.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Advanced-Elastomer-Systems-Santoprene-251-85-Thermoplastic-Rubber-nbspdiscontinued-.php

Physical Properties	Metric	English	Comments
Density	1.14 g/cc	0.0412 lb/in ³	TPE-0105 (ASTM D792)

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	85	85	5 Second; TPE-0169 (ASTM D 2240)
Tensile Strength, Ultimate	10.2 MPa	1480 psi	TPE-0153 (ASTM D 412)
Elongation at Break	445 %	445 %	TPE-0153 (ASTM D 412)
100% Modulus	0.00430 GPa	0.624 ksi	TPE-0153 (ASTM D 412)
Tear Strength	31.7 kN/m	181 pli	31.7 kN/m at 23°C. Value at 100°C is 11.6 kN/m. TPE-0056 (ASTM D 624)
Compression Set	30 %	30 %	23°C, 168 hrs.; TPE-0016 (ASTM D 412)
	52 %	52 %	168 hrs.; TPE-0016 (ASTM D 412)
	@Temperature 100 °C	@Temperature 212 °F	
Tensile Set	11 %	11 %	23°C, 168 hrs.; TPE-0053 (ASTM D 412)

Thermal Properties	Metric	English	Comments
Brittleness Temperature	<= -57.0 °C	<= -70.6 °F	TPE-0089 (ASTM D 746)

Flammability UL 94 Thermal Properties	HB Metric	HB English	Comments
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Electrical Properties	Metric	English	Comments
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Dielectric Constant	2.33	2.33	Frequency not specified
Dielectric Strength	19.6 kV/mm @Thickness 3.17 mm	498 kV/in @Thickness 0.125 in	

Processing Properties	Metric	English	Comments
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Processing Temperature	177 - 232 °C	351 - 450 °F	
Drying Temperature	82.0 °C	180 °F	Desiccant drying for 3 hours recommended
Dry Time	3 hour	3 hour	

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