

## Advanced Elastomer Systems Santoprene® 153-38 Thermoplastic Rubber (discontinued \*\*)

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

### Material Notes:

A black 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 2.42, dielectric strength at 3.17 mm (125 mil), 19.6 kV/mm (500 v/mil); Flame resistant HB material; Continuous temperature rating 1000 hrs. @ 135°C (275°F); Excellent flex fatigue resistance; Excellent ozone resistance; Limiting oxygen index, 23% 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-153-38-Thermoplastic-Rubber-nbspdiscontinued-.php](http://www.lookpolymers.com/polymer_Advanced-Elastomer-Systems-Santoprene-153-38-Thermoplastic-Rubber-nbspdiscontinued-.php)

Physical Properties	Metric	English	Comments
Density	1.13 g/cc	0.0408 lb/in <sup>3</sup>	TPE-0105 (ASTM D792)

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	38	38	5 Second; TPE-0169 (ASTM D 2240)
Tensile Strength, Ultimate	11.6 MPa	1680 psi	TPE-0153 (ASTM D 412)
Elongation at Break	530 %	530 %	TPE-0153 (ASTM D 412)
100% Modulus	0.00690 GPa	1.00 ksi	TPE-0153 (ASTM D 412)
Graves Tear Strength	55.4 kN/m	316 pli	TPE-0056 (ASTM D 624)
Compression Set	30 %	30 %	23°C, 168 hrs.; TPE-0016 (ASTM D 412)
	47 %	47 %	168 hrs.; TPE-0016 (ASTM D 412)
	@Temperature 100 °C	@Temperature 212 °F	
Tensile Set	36.5 %	36.5 %	23°C, 168 hrs.; TPE-0053 (ASTM D 412)

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	135 °C	275 °F	Continuous temperature Rating, 1000 hours

Brittleness Temperature Thermal Properties	≤ -48.0 °C Metric	≤ -54.4 °F English	TPE-0089 (ASTM D 746) Comments
Flammability, UL94	HB	HB	

Electrical Properties	Metric	English	Comments
Dielectric Constant	2.42	2.42	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
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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