ExxonMobil

Santoprene™ 121-80M300

Thermoplastic Vulcanizate

Product Description

A soft, black, UV resistant thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. This material is designed for automotive interior applications requiring low fogging and good appearance. This grade of Santoprene TPV is shear-dependent and can be processed on conventional thermoplastics equipment for injection molding. It is polyolefin based and recyclable within the manufacturing stream.

Key Features

- Designed for fast, easy injection molding, especially for complex part geometries.
- Used in sealing applications.
- Recommended for applications requiring superior part surface appearance.
- Designed to be injected at lower molding temperatures or at lower injection pressures.
- Designed for automotive interior applications requiring low fogging and low odor.
- Designed for improved UV resistance.

General

Applications	▪ Automotive - Seals and Gaskets	
Uses	▪ Automotive Applications ▪ Automotive Exterior Trim	▪ Automotive Interior Trim ▪ Outdoor Applications
RoHS Compliance	▪ RoHS Compliant	
Automotive Specifications	▪ CHRYSLER MS-AR-27 Type B	
Color	▪ Black	
Form(s)	▪ Pellets	
Processing Method	▪ Injection Molding	▪ Multi Injection Molding

Physical	Typical Value (English)		Typical Value (SI)		Test Based On
Density / Specific Gravity	0.920		0.920		ASTM D792
Density	0.920	g/cm³	0.920	g/cm³	ISO 1183

Hardness	Typical Value (English)		Typical Value (SI)		Test Based On
Shore Hardness					ISO 868
Shore A, 15 sec, 73°F (23°C)	82		82		

Elastomers	Typical Value (English)		Typical Value (SI)		Test Based On
Tensile Stress at 100% - Across Flow (73°F (23°C))	551	psi	3.80	MPa	ASTM D412
Tensile Stress at 100% - Across Flow (73°F (23°C))	551	psi	3.80	MPa	ISO 37
Tensile Strength at Break - Across Flow (73°F (23°C))	1600	psi	11.0	MPa	ASTM D412
Tensile Stress at Break - Across Flow (73°F (23°C))	1600	psi	11.0	MPa	ISO 37
Elongation at Break - Across Flow (73°F (23°C))	560	%	560	%	ASTM D412
Tensile Strain at Break - Across Flow (73°F (23°C))	560	%	560	%	ISO 37
Compression Set					ASTM D395B
158°F (70°C), 22 hr, Type 1	53	%	53	%	
212°F (100°C), 70 hr, Type 1	56	%	56	%	
Compression Set					ISO 815
158°F (70°C), 22 hr, Type A	53	%	53	%	
212°F (100°C), 70 hr, Type A	56	%	56	%	

Thermal	Typical Value (English)		Typical Value (SI)		Test Based On
Brittleness Temperature	-72	°F	-58	°C	ASTM D746
Brittleness Temperature	-72	°F	-58	°C	ISO 812

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Injection Notes

Santoprene™ TPV is incompatible with acetal and PVC. For more information regarding processing and mold design, please consult our Injection Molding Guide.

Aging	Typical Value (English)	Typical Value (SI)	Test Based On
Change in Tensile Strength in Air			ASTM D573
212°F (100°C), 1008 hr	-7.0 %	-7.0 %	
Change in Tensile Strength in Air			ISO 188
212°F (100°C), 1008 hr	-7.0 %	-7.0 %	
Change in Ultimate Elongation in Air			ASTM D573
212°F (100°C), 1008 hr	-8.0 %	-8.0 %	
Change in Tensile Strain at Break in Air			ISO 188
212°F (100°C), 1008 hr	-8.0 %	-8.0 %	
Change in Durometer Hardness in Air			ASTM D573
Shore A, 212°F (100°C), 1008 hr	2.0	2.0	
Change in Shore Hardness in Air			ISO 188
Shore A, 212°F (100°C), 1008 hr	2.0	2.0	