

Santoprene™ 123-40

Thermoplastic Vulcanizate

ExxonMobil Chemical

Message:

It is a hard, black, UV-resistant 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			
Features	Good dimensional stability		
	Good UV resistance		
	Recyclable materials		
	Ozone resistance		
	Good chemical resistance		
	Fatigue resistance		
	Good weather resistance		
Uses	Application in Automobile Field		
	Car exterior decoration		
	Outdoor application		
RoHS Compliance	RoHS compliance		
Appearance	Black		
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			
--	0.958	g/cm ³	ASTM D792
--	0.960	g/cm ³	ISO 1183

Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shaw D, 15 seconds, 23°C, 2.00mm)	41		ISO 868
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress - Across Flow (100% Strain, 23°C)	9.10	MPa	ASTM D412, ISO 37
Tensile Strength - Across Flow (Break, 23°C)	19.1	MPa	ASTM D412, ISO 37
Tensile Elongation - Across Flow (Break, 23°C)	620	%	ASTM D412, ISO 37
Tear Strength - Across Flow			
23°C ¹	67.0	kN/m	ASTM D624
23°C ²	67	kN/m	ISO 34-1
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air (150°C, 168 hr)	-17	%	ASTM D573, ISO 188
Change in Ultimate Elongation in Air (150°C, 168 hr)	-22	%	ASTM D573, ISO 188
Change in Durometer Hardness in Air (support d, 150°C, 168 hr)	2.0		ASTM D573, ISO 188
Change in Tensile Strength (125°C, 70 hr, in IRM 903 Oil)	-27	%	ASTM D471, ISO 1817
Change in Ultimate Elongation (125°C, 70 hr, in IRM 903 Oil)	-31	%	ASTM D471, ISO 1817
Change in Volume			
125°C, 70 hr, in IRM 903 oil	45	%	ASTM D471
125°C, 70 hr, in IRM 903 oil	45	%	ISO 1817
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	-58.0	°C	ASTM D746, ISO 812
Electrical	Nominal Value	Unit	Test Method
Dielectric Strength (23°C, 2.00 mm)	31	kV/mm	ASTM D149
Dielectric Constant (23°C, 1.98 mm)	2.60		ASTM D150, IEC 60250
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.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	
Drying Temperature	82.2	°C	
Drying Time	3.0	hr	
Suggested Max Moisture	0.080	%	
Suggested Max Regrind	20	%	
Rear Temperature	193	°C	
Middle Temperature	199	°C	
Front Temperature	204	°C	

Nozzle Temperature	210 - 238	°C
Processing (Melt) Temp	216 - 232	°C
Mold Temperature	10.0 - 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
Drying Temperature	82.2	°C
Drying Time	3.0	hr
Melt Temperature	210	°C
Die Temperature	216	°C
Back Pressure	5.00 - 20.0	MPa

Extrusion 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《挤出成型指南》.

NOTE

1. C mould
2. Method B, right-angle specimen (cut)

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Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China



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