

# Sarlink® TPV 3135

Teknor Apex Company - Thermoplastic Vulcanizate

Thursday, June 29, 2017

## General Information

### Product Description

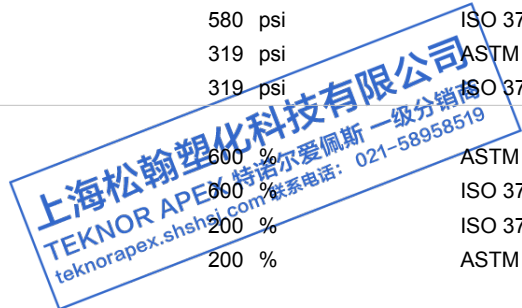
SARLINK® TPV 3100 series are engineered materials designed primarily for general purpose, automotive and industrial applications requiring a good balance of thermal, mechanical, and physical properties. SARLINK® 3135, available in NAT and BLK, is a low hardness, low density, multi-purpose thermoplastic vulcanizate that can be processed by injection molding, blow molding or extrusion for applications such as grips, seals, gaskets, profiles, hose & tubes, bellows, and other articles.

### General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Bondability • Chemical Resistant • General Purpose • Good Adhesion • Good Flexibility	• Good Moldability • Good Processability • Good Surface Finish • High Elasticity • High Heat Resistance	• High Melt Stability • Low Density • Low Hardness • Low Specific Gravity • Resilient
Uses	• Appliance Components • Automotive Applications • Automotive Exterior Parts • Automotive Interior Parts • Automotive Under the Hood • Blow Molding Applications	• Gaskets • General Purpose • Handles • Industrial Applications • O-rings • Pipe Seals	• Plugs • Profiles • Rubber Replacement • Seals
Agency Ratings	• UL 94		
RoHS Compliance	• RoHS Compliant		
Appearance	• Black	• Natural Color	• Opaque
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

## ASTM & ISO Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.932		ASTM D792
Density	0.930	g/cm <sup>3</sup>	ISO 1183
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			
Across Flow : 100% Strain	160	psi	ASTM D412
Across Flow : 100% Strain	160	psi	ISO 37
Flow : 100% Strain	305	psi	ASTM D412
Flow : 100% Strain	305	psi	ISO 37
Tensile Stress			
Across Flow : Break	580	psi	ASTM D412
Across Flow : Break	580	psi	ISO 37
Flow : Break	319	psi	ASTM D412
Flow : Break	319	psi	ISO 37
Tensile Elongation			
Across Flow : Break	600	%	ASTM D412
Across Flow : Break	600	%	ISO 37
Flow : Break	200	%	ISO 37
Flow : Break	200	%	ASTM D412



Revision Date: 6/1/2016

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<b>Elastomers</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Tear Strength - Across Flow			
--	86	lbf/in	ASTM D624
-- <sup>2</sup>	86	lbf/in	ISO 34-1
<b>Compression Set</b>			
73°F, 22 hr	15	%	ASTM D395
73°F, 22 hr	15	%	ISO 815
158°F, 22 hr	30	%	ASTM D395
158°F, 22 hr	30	%	ISO 815
257°F, 70 hr	52	%	ASTM D395
257°F, 70 hr	52	%	ISO 815
<b>Hardness</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Shore Hardness			
Shore A, 5 sec, Extruded	38		ASTM D2240
Shore A, 5 sec, Extruded	38		ISO 868
Shore A, 5 sec, Injection Molded	43		ASTM D2240
Shore A, 5 sec, Injection Molded	43		ISO 868
<b>Thermal</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
RTI Elec	122	°F	UL 746
RTI Imp	122	°F	UL 746
RTI Str	122	°F	UL 746
<b>Aging</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Change in Tensile Strength in Air - Across Flow			
275°F, 1000 hr	0.0	%	ASTM D573
275°F, 1000 hr	0.0	%	ISO 188
100% Strain 275°F, 1000 hr	4.0	%	ASTM D573
100% Strain 275°F, 1000 hr	4.0	%	ISO 188
302°F, 168 hr	4.0	%	ASTM D573
302°F, 168 hr	4.0	%	ISO 188
100% Strain 302°F, 168 hr	11	%	ASTM D573
100% Strain 302°F, 168 hr	11	%	ISO 188
Change in Tensile Strain at Break in Air - Across Flow			
275°F, 1000 hr	-2.0	%	ASTM D573
275°F, 1000 hr	-2.0	%	ISO 188
302°F, 168 hr	1.0	%	ISO 188
302°F, 168 hr	1.0	%	ASTM D573
Change in Shore Hardness in Air			
Shore A, 275°F, 1000 hr	-1.0		ASTM D573
Shore A, 275°F, 1000 hr	-1.0		ISO 188
Shore A, 302°F, 168 hr	1.0		ISO 188
Shore A, 302°F, 168 hr	1.0		ASTM D573
Change in Volume			
257°F, 70 hr, in IRM 903 Oil	150	%	ASTM D471
257°F, 70 hr, in IRM 903 Oil	150	%	ISO 1817
<b>Flammability</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Flame Rating (0.06 in, All Colors)	HB		UL 94
<b>Additional Information</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Apparent Shear Viscosity - Capillary, @ 206/s			
392°F	270	Pa·s	ASTM D3835
392°F	270	Pa·s	ISO 11443



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### Legal Statement

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### Processing Information

Injection	Nominal Value	Unit
Drying Temperature	180	°F
Drying Time	3.0	hr
Rear Temperature	350 to 420	°F
Middle Temperature	350 to 420	°F
Front Temperature	350 to 420	°F
Nozzle Temperature	370 to 430	°F
Processing (Melt) Temp	360 to 430	°F
Mold Temperature	50 to 150	°F
Back Pressure	10.0 to 50.0	psi
Screw Speed	100 to 200	rpm
Screw L/D Ratio	20.0:1.0	

Extrusion	Nominal Value	Unit
Drying Temperature	180	°F
Drying Time	3.0	hr
Cylinder Zone 1 Temp.	360 to 400	°F
Cylinder Zone 2 Temp.	360 to 400	°F
Cylinder Zone 3 Temp.	370 to 410	°F
Cylinder Zone 4 Temp.	370 to 410	°F
Melt Temperature	380 to 420	°F
Die Temperature	380 to 420	°F
Take-Off Roll	70 to 120	°F

### Extrusion Notes

Screen Pack: 20 to 60 Mesh  
Screw: General Purpose  
Compression Ratio: 3:1

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> Method Ba, Angle (Unnicked)

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