



Sarlink® TPV 3135

Teknor Apex Company - Thermoplastic Vulcanizate

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 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		
UL File Number	• QMFZ2.E54709		
Appearance	• Natural Color	• Opaque	
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties ¹

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

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Elastomers	Nominal Value	Unit	Test Method
Tear Strength - Across Flow			
--	85.7	lbf/in	ASTM D624
-- 2	85.7	lbf/in	ISO 34-1
Compression Set			
73°F, 22 hr	15	%	ISO 815
73°F, 22 hr	15	%	ASTM D395
158°F, 22 hr	30	%	ISO 815
158°F, 22 hr	30	%	ASTM D395
257°F, 70 hr	52	%	ISO 815
257°F, 70 hr	52	%	ASTM D395
Hardness	Nominal Value	Unit	Test Method
Shore Hardness			
Shore A, 5 sec, Extruded	38		ISO 868
Shore A, 5 sec, Extruded	38		ASTM D2240
Shore A, 5 sec, Injection Molded	43		ISO 868
Shore A, 5 sec, Injection Molded	43		ASTM D2240
Thermal	Nominal Value	Unit	Test Method
RTI Elec	122	°F	UL 746B
RTI Imp	122	°F	UL 746B
RTI Str	122	°F	UL 746B
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air - Across Flow			
275°F, 1000 hr	0.0	%	ISO 188
275°F, 1000 hr	0.0	%	ASTM D573
100% Strain 275°F, 1000 hr	4.0	%	ISO 188
100% Strain 275°F, 1000 hr	4.0	%	ASTM D573
302°F, 168 hr	4.0	%	ISO 188
302°F, 168 hr	4.0	%	ASTM D573
100% Strain 302°F, 168 hr	11	%	ISO 188
100% Strain 302°F, 168 hr	11	%	ASTM D573
Change in Tensile Strain at Break in Air - Across Flow			
275°F, 1000 hr	-2.0	%	ISO 188
275°F, 1000 hr	-2.0	%	ASTM D573
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		ISO 188
Shore A, 275°F, 1000 hr	-1.0		ASTM D573
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	%	ISO 1817
257°F, 70 hr, in IRM 903 Oil	150	%	ASTM D471
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in, All Colors)	HB		UL 94

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Additional Information	Nominal Value	Unit	Test Method
Apparent Shear Viscosity - Capillary, @ 206/s			
392°F	270	Pa·s	ISO 11443
392°F	270	Pa·s	ASTM D3835

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

¹ Typical properties: these are not to be construed as specifications.

² Method Ba, Angle (Unnicked)