Sarlink[®] TPV 4139D

Teknor Apex Company - Thermoplastic Vulcanizate

General Information

Product Description

SARLINK® TPV 4100 series are engineered materials designed primarily for demanding automotive and industrial applications. Available in both black and natural, SARLINK® 4139D is a low density, high hardness thermoplastic vulcanizate that exhibits exceptional tensile strength, superior compression set, chemical resistance and high temperature performance. This grade can be processed by injection molding, blow molding and extrusion for applications such as seals, gaskets, chemical resistant hose and tube, boots and bellows.

General			
Material Status	Commercial: Active		
Availability	Asia PacificEurope	Latin AmericaNorth America	
Features	 Chemical Resistant Fatigue Resistant Good Adhesion Good Moldability Good Processability 	 Good Surface Finish High Hardness High Melt Stability Low Density Low Specific Gravity 	Low Temperature FlexibilityMedium Heat ResistanceResilient
Uses	 Appliance Components Automotive Applications Automotive Exterior Parts Automotive Interior Parts Automotive Under the Hood 	 Blow Molding Applications Grommets Handles Industrial Applications Plugs 	 Profiles Rubber Replacement Seals
Agency Ratings	• UL 94		
RoHS Compliance	RoHS Compliant		
Automotive Specifications	 CHRYSLER MS-AR-100 FGN CHRYSLER MS-AR-100 FGN FORD WSD-M2D441-A Color FORD WSD-M2D441-A Color GM GMP.E/P.006 Color: Black GM GMP.E/P.006 Color: Natu GM GMW15813 Type 9 Color GM GMW15813 Type 9 Color GM QK 3531 Type 2 Color: B GM QK 3531 Type 2 Color: N PSA Peugeot-Citroën B62 03 VAG VW501 23 Color: Black 	I Color: Natural T Black Natural K ral Black Natural lack atural	
Appearance	Black	Natural Color	Opaque
Forms	Pellets		
Processing Method	Blow MoldingExtrusion	Injection MoldingProfile Extrusion	

ASTM & ISO Properties¹

Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.950		ASTM D792
Density	0.950	g/cm³	ELEPISO 1183
Elastomers	Nominal Value		Test Method
Tensile Stress	一個化	的 的 的 的 影響	21-58955 ASTM D412
Across Flow : 100% Strain	1290	ipsi _系 由话:	
Flow : 100% Strain	Light APERty TEKNOR APERTY TEK	psi	
Tensile Stress	TEKNO		ISO 37
Across Flow : 100% Strain	teknot 1290	psi	
Flow : 100% Strain	1930	psi	

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lastomers	Nominal Value	Unit	Test Method
Tensile Strength			ASTM D412
Across Flow : Break	2760	psi	
Flow : Break	2610	psi	
Tensile Stress			ISO 37
Across Flow : Break	2760	psi	
Flow : Break	2610	psi	
Tensile Elongation			ASTM D412
Across Flow : Break	700	%	
Flow : Break	420	%	
Tensile Elongation			ISO 37
Across Flow : Break	700	%	
Flow : Break	420	%	
Tear Strength - Across Flow	550	lbf/in	ASTM D624
Tear Strength - Flow ²	550	lbf/in	ISO 34-1
Compression Set			ASTM D395
73°F, 22 hr	46	%	
158°F, 22 hr	56	%	
257°F, 70 hr	80	%	
Compression Set			ISO 815
73°F, 22 hr	46	%	
158°F, 22 hr	56	%	
257°F, 70 hr	80	%	
lardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore D, 5 sec, Extruded	39		
Shore D, 5 sec, Injection Molded	40		
Shore Hardness			ISO 868
Shore D, 5 sec, Extruded	39		
Shore D, 5 sec, Injection Molded	40		
hermal	Nominal Value	Unit	Test Method
RTI Elec	212		UL 746
RTI Imp	212		UL 746
RTI Str	212		UL 746
	Nominal Value		
Aging		Unit	Test Method
Change in Tensile Strength in Air - Across Flow	-15	0/_	ASTM D573
275°F, 1000 hr 100% Strain, 275°E 1000 hr	-15 20		
100% Strain, 275°F, 1000 hr 302°E 168 br	-15		
302°F, 168 hr 100% Strain, 202°E 168 hr			~
100% Strain, 302°F, 168 hr	15	%	100 100
Change in Tensile Strength in Air - Across Flow	15 -15 20. Link APEXIS	0/	100 100
275°F, 1000 hr	-15	~ + 1	化 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一
100% Strain 275°F, 1000 hr	20.	FATX INTE	58958519
302°F, 168 hr	-15 20. 20. 20. 20. 20. 20. 20.	常尔爱 07	21-02
100% Strain 302°F, 168 hr	LAPEX 5	m ####	
Change in Lilitimate Elengation in Air Aeroeg Elevi	I CR chsl.co		ASTM D573
Change in Ultimate Elongation in Air - Across Flow 275°F, 1000 hr	LEKNU X.Show		

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Aging	Nominal Value	Unit	Test Method
Change in Tensile Strain at Break in Air - Across Flow			ISO 188
275°F, 1000 hr	-20	%	
302°F, 168 hr	-20	%	
Change in Durometer Hardness in Air			ASTM D573
Shore D, 275°F, 1000 hr	2.0		
Shore D, 302°F, 168 hr	2.0		
Change in Shore Hardness in Air			ISO 188
Shore D, 275°F, 1000 hr	2.0		
Shore D, 302°F, 168 hr	2.0		
Change in Volume (257°F, 70 hr, in IRM 903 Oil)	47	%	ASTM D471
Change in Volume (257°F, 70 hr, in IRM 903 Oil)	47	%	ISO 1817
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.04 in, All Colors)	HB		UL 94
Additional Information	Nominal Value	Unit	Test Method
Apparent Shear Viscosity - Capillary, @ 206/s			
392°F	370	Pa∙s	ISO 11443
392°F	370	Pa·s	ASTM D3835

Legal Statement

The information and recommendations contained in this bulletin are, to the best of our knowledge, accurate and reliable but no guarantee of their accuracy is made. All products are sold upon condition that purchasers shall make their own tests to determine the suitability of such products for their particular purposes and uses and purchaser assumes all risks and liability for the results of use of the products, including use in accordance with seller's recommendations. Nothing in this bulletin constitutes permission or a recommendation to practice or use any invention covered by any patent owned by this company or others. There is no warranty of merchantability and there are no other warranties for the products described. For detailed Product Stewardship information, please contact us. Any product of Teknor Apex, including product names, shall not be used or tested in medical or food contact applications without the prior written acknowledgement of Teknor Apex as to the intended use. Please note that some products may not be available in one or more countries.

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	365 to 428	°F
Mold Temperature	50 to 150	°F
Back Pressure	10.0 to 150	psi
Screw Speed	100 to 200	rpm
Screw L/D Ratio	20.0:1.0	
Extrusion	Nominal Value	Unit
Drying Temperature	180	°F ₩ 技有限公司 ₩ 技術 ●
Drying Time	3.0	hr + 1 1 1 1 1 1 1
Cylinder Zone 1 Temp.	360 to 400	科化 58958519
Cylinder Zone 2 Temp.	360 10 400	著示意 ¹¹¹¹ : 021-3
Cylinder Zone 3 Temp.	F 370 to 410	m R Mark
Cylinder Zone 4 Temp.	TEKNO 370 6 410	۴
Melt Temperature	teknorap 380 to 420	F F
Die Temperature	380 to 420	°F
Take-Off Roll	70 to 120	°F

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Extrusion Notes

Screen Pack: 20 to 60 mesh Compression Ratio: 3:1

Notes

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

² Method Ba, Angle (Unnicked)

Teknor Apex Company Corporate Headquarters

Teknor Apex U.K. Ltd.

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