

### Teknor Apex Company - Thermoplastic Vulcanizate

Thursday, June 29, 2017

### **General Information**

#### **Product Description**

Flow: Break

SARLINK® TPV 3160 is a general purpose thermoplastic vulcanizate featuring excellent flex fatigue resistance, heat aging and resilience. SARLINK® TPV 3160 is a medium hardnes, low density grade offered in Nat and Black for use in injection molded parts, sheet and profile extrusions such as weather-stripping and can also be blow molded into boots and ducts.

General				
Material Status	Commercial: Active			
Availability	<ul> <li>Asia Pacific</li> </ul>	<ul> <li>Latin America</li> </ul>		
Availability	• Europe	North America		
	<ul> <li>Bondability</li> </ul>	<ul> <li>Good Moldability</li> </ul>	Medium Hardness	
	<ul> <li>Chemical Resistant</li> </ul>	<ul> <li>Good Processability</li> </ul>	Medium Heat Resistance	
Features	General Purpose	Good Surface Finish	Resilient	
	Good Adhesion     Good Floribility	High Elasticity	<ul> <li>Weather Resistant</li> </ul>	
	Good Flexibility	Low Density		
	Automotive Applications     Automotive Enterior Ports	Gaskets     Gasard Burness	• Plugs	
Haar	Automotive Exterior Parts     Automotive Interior Parts	General Purpose     Industrial Applications	Profiles     Dubbar Daplacement	
Uses	<ul><li>Automotive Interior Parts</li><li>Automotive Under the Hood</li></ul>	<ul><li>Industrial Applications</li><li>O-rings</li></ul>	<ul><li>Rubber Replacement</li><li>Seals</li></ul>	
	<ul> <li>Diaphragms</li> </ul>	Pipe Seals	Weatherstripping	
Agency Ratings	• UL 94	• UL QMFZ2	• UL QMFZ8	
RoHS Compliance	RoHS Compliant			
	BMW Unspecified Color: Blace	k		
	CHRYSLER MS-AR-80 Type B Color: Black			
	CHRYSLER MS-AR-80 Type			
	<ul> <li>DAIMLER DBL 5562.30 Color</li> </ul>	: Black		
	<ul> <li>FORD WSD-M2D379-A1 Cold</li> </ul>	or: Black		
Automotive Specifications	<ul> <li>GM QK 003521 Color: Black</li> </ul>			
	GM QK 003521 Color: Natural			
	HONDA Unspecified Color: Black			
	PSA Peugeot-Citroën B62 0300 version G Color: Black      ASS 19999			
	SAE J3000 Color: Black     SAE J3000 Color: Network			
	SAE J3000 Color: Natural	Natural Calan	0.5.5.5.5.5	
Appearance	Black	Natural Color	Opaque	
Forms	• Pellets			
Processing Method	Blow Molding	Extrusion	Injection Molding	
	ASTM & ISO P	Properties 1		
Physical		Nominal Value Unit	Test Method	
Specific Gravity		0.950	ASTM D792	
Density		0.950 g/cm <sup>3</sup>	ISO 1183	
Elastomers		Nominal Value Unit  363 psi 551 psi TEKNOR APE363 psi teknorapex.snsh551 psi 914 psi	Test Method	
Tensile Stress			ASTM D412	
Across Flow: 100% Strain		363 psi	<b>美加州</b>	
Flow: 100% Strain		551 psi	斯 58958575	
Tensile Stress		小詢聖"诗谱尔爱顺	1SO 37	
Across Flow: 100% Strain	1	LANDES63 DESERBING		
Flow: 100% Strain		KNOR shsh551 psi		
Tensile Strength		Teknorapex	ASTM D412	
Across Flow : Break		914 psi		

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914 psi

783 psi

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Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ISO 37
Across Flow : Break	914	psi	
Flow : Break	783	psi	
Tensile Elongation			ASTM D412
Across Flow : Break	640	%	
Flow: Break	270	%	
Tensile Elongation			ISO 37
Across Flow : Break	640	%	
Flow : Break	270	%	
Tear Strength - Across Flow	180	lbf/in	ASTM D624
Tear Strength - Across Flow <sup>2</sup>	180	lbf/in	ISO 34-1
Compression Set			ASTM D395
73°F, 22 hr	23	%	
158°F, 22 hr	34	%	
257°F, 70 hr	55		
Compression Set		<u> </u>	ISO 815
73°F, 22 hr	23	%	
158°F, 22 hr	34		
257°F, 70 hr	55		
Hardness	Nominal Value		Test Method
Durometer Hardness	Hommur Value	- Cilit	ASTM D2240
Shore A, 5 sec, Extruded	62		AOTW DZZ40
Shore A, 5 sec, Injection Molded	65		
Shore Hardness	00		ISO 868
Shore A, 5 sec, Extruded	62		130 000
Shore A, 5 sec, Injection Molded	65		
Fhermal	Nominal Value	Unit	Test Method
RTI Elec	122		UL 746
RTI Imp	122		UL 746
RTI Str	122		UL 746
	Nominal Value		Test Method
Aging	Nonlinai value	UIIIL	
Change in Tensile Strength in Air - Across Flow	4.0	0/	ASTM D573
275°F, 1000 hr	-4.0		
100% Strain, 275°F, 1000 hr	3.0		
302°F, 168 hr	-1.0		
100% Strain, 302°F, 168 hr	7.0	%	100 100
Change in Tensile Strength in Air - Across Flow		0/	ISO 188
275°F, 1000 hr	-4.0		
100% Strain 275°F, 1000 hr	3.0		
302°F, 168 hr	-1.0	%	品公司 \
100% Strain 302°F, 168 hr	-1.0 7.0 7.0 7.0 TEKNOR APEXING TEKNOR APEXING TEK	**************************************	及
Change in Ultimate Elongation in Air - Across Flow	1V.	科技順斯	589585ASTM D5/3
275°F, 1000 hr	以鹤型50	光尔爱师"	21-30
302°F, 168 hr	THE PEXT	17 供系电量	
Change in Tensile Strain at Break in Air - Across Flow	KNOR shshsl.co		ISO 188
275°F, 1000 hr	TEKnorapex 5.0	%	
302°F, 168 hr	-11	0/	

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Aging	Nominal Value	Unit	Test Method
Change in Durometer Hardness in Air			ASTM D573
Shore A, 275°F, 1000 hr	2.0		
Shore A, 302°F, 168 hr	3.0		
Change in Shore Hardness in Air			ISO 188
Shore A, 275°F, 1000 hr	2.0		
Shore A, 302°F, 168 hr	3.0		
Change in Volume (257°F, 70 hr, in IRM 903 Oil)	120	%	ASTM D471
Change in Volume (257°F, 70 hr, in IRM 903 Oil)	120	%	ISO 1817
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+16	ohms·cm	ASTM D257
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in, Natural and Black Colors)	НВ		UL 94
Additional Information	Nominal Value	Unit	Test Method
Apparent Shear Viscosity - Capillary, @ 206/s			
392°F	310		ISO 11443
392°F	310	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	356 to 419	°F		
Middle Temperature	356 to 419	°F		
Front Temperature	356 to 419	°F		
Nozzle Temperature	369 to 428	°F		
Processing (Melt) Temp	365 to 428	°F		
Mold Temperature	50 to 131	°F		
Back Pressure	14.5 to 145	psi		
Screw Speed	100 to 200	rpm		
Extrusion	Nominal Value	Unit		
Drying Temperature	180	°F		
Drying Time	3.0	hr		
Cylinder Zone 1 Temp.	356 to 392	°F III N		
Cylinder Zone 2 Temp.	356 to 401	°F 有限公司		
Cylinder Zone 3 Temp.	369 to 410	194 JAMEN 58958519		
Cylinder Zone 4 Temp.	369 to 410	是不是。 021		
Melt Temperature	38376419	m <sup>e</sup>		
Die Temperature	TEKNO 383 6 419	°F		
Take-Off Roll	teknoration 68 to 122	F		

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#### **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)

#### Teknor Apex Company Corporate Headquarters

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