

### Teknor Apex Company - Thermoplastic Vulcanizate

Thursday, June 29, 2017

### **General Information**

#### **Product Description**

Tensile Stress

Tensile Strength
Across Flow : Break
Flow : Break
Tensile Stress

Across Flow : Break Flow : Break

Across Flow : 100% Strain Flow : 100% Strain

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® 3139D, available in NAT and BLK, is a hard 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	<ul><li> Africa &amp; Middle East</li><li> Asia Pacific</li></ul>	<ul><li>Europe</li><li>Latin America</li></ul>	North America
Features	<ul><li>Chemical Resistant</li><li>Fatigue Resistant</li><li>Good Adhesion</li><li>Good Moldability</li></ul>	<ul><li>Good Processability</li><li>Good Surface Finish</li><li>High Hardness</li><li>Low Density</li></ul>	<ul><li>Low Specific Gravity</li><li>Medium Heat Resistance</li><li>Resilient</li><li>Weather Resistant</li></ul>
Uses	<ul><li>Automotive Applications</li><li>Automotive Exterior Parts</li><li>Automotive Interior Parts</li><li>Automotive Under the Hood</li></ul>	<ul><li>Blow Molding Applications</li><li>Grommets</li><li>Industrial Applications</li><li>Plugs</li></ul>	<ul><li> Profiles</li><li> Weatherstripping</li></ul>
Agency Ratings	• UL 94		
RoHS Compliance	<ul> <li>RoHS Compliant</li> </ul>		
Automotive Specifications	<ul> <li>GM QK 000060 Type A Color</li> <li>GM QK 3532 Type 2 Color: N</li> <li>PSA Peugeot-Citroën B62 03</li> <li>RENAULT F.E.M. 03 20 007 C</li> <li>TOYOTA TSM 5529G Color: I</li> <li>VAG VW501 23 Color: Black</li> <li>VOLKSWAGEN TL 1010 Colo</li> <li>VOLKSWAGEN VW 50180 C</li> </ul>	atural, Black 00 version G Color: Black Color: Black Black or: Black	
Appearance	• Black	Natural Color	Opaque
Forms	<ul> <li>Pellets</li> </ul>		
Processing Method	Blow Molding	• Extrusion	Injection Molding
	ASTM & ISO F	Properties 1	
Physical		Nominal Value Unit	Test Method
Specific Gravity		0.940	ASTM D792
Density		0.940 g/cm <sup>3</sup>	ISO 1183
Elastomers		Nominal Value Unit	Test Method
Tensile Stress			ASTM D412
Across Flow : 100% Strain		1290 psi	
Flow: 100% Strain		1930 psi	

1290 psi 1930 psi 193

2680 psi 2520 psi

## Teknor Apex Company - Thermoplastic Vulcanizate

Elastomers	Nominal Value	Unit	Test Method
Tensile Elongation			ASTM D412
Across Flow : Break	700	%	
Flow : Break	400	%	
Tensile Elongation			ISO 37
Across Flow : Break	700	%	
Flow: Break	400	%	
Tear Strength - Across Flow	580	lbf/in	ASTM D624
Tear Strength - Across Flow <sup>2</sup>	580	lbf/in	ISO 34-1
Compression Set			ASTM D395
73°F, 22 hr	53	%	
158°F, 22 hr	67	%	
257°F, 70 hr	85	%	
Compression Set			ISO 815
73°F, 22 hr	53	%	
158°F, 22 hr	67	%	
257°F, 70 hr	85		
Hardness	Nominal Value		Test Method
Durometer Hardness			ASTM D2240
Shore D, 5 sec, Extruded	38		
Shore D, 5 sec, Injection Molded	41		
Shore Hardness	•		ISO 868
Shore D, 5 sec, Extruded	38		2
Shore D, 5 sec, Injection Molded	41		
Thermal	Nominal Value	Unit	Test Method
RTI Elec	122		UL 746
RTI Imp	122		UL 746
RTI Str	122		UL 746
Aging	Nominal Value		Test Method
Change in Tensile Strength in Air - Across Flow	Nominal value	Offic	ASTM D573
275°F, 1000 hr	-5.0	0/2	AOTIVI DOTO
100% Strain, 275°F, 1000 hr	-5.0 9.0		
302°F, 168 hr	-7.0		
100% Strain, 302°F, 168 hr	-7.0 11		
	11	/0	ISO 100
Change in Tensile Strength in Air - Across Flow	<i>-</i>	0/_	ISO 188
275°F, 1000 hr	-5.0 9.0		
100% Strain 275°F, 1000 hr	9.0 -7.0		
302°F, 168 hr			
100% Strain 302°F, 168 hr	11	70	MOTM DEZO
Change in Ultimate Elongation in Air - Across Flow	20	0/	ASTM D573
275°F, 1000 hr	90	70	4公司 \
302°F, 168 hr	89	地拉	<b>医</b>
Change in Tensile Strain at Break in Air - Across Flow	11/2	科沙區斯	589585 SO 188
_		70-13 Illino	21-0-
275°F, 1000 hr	物塑物	诺尔克语: 04	
275°F, 1000 hr 302°F, 168 hr	90 89 <b>*海松前理%</b>	的	A0711 D ===
275°F, 1000 hr 302°F, 168 hr Change in Durometer Hardness in Air	LEKNOR APEXIN	· 大家里道: 02	ASTM D573
275°F, 1000 hr 302°F, 168 hr	90 89 89 TEKNOR APEXIN TEKNOR APEXING TEKNOR O.O. 1.0	所表明语: O2	ASTM D573

### Teknor Apex Company - Thermoplastic Vulcanizate

Aging	Nominal Value	Unit	Test Method
Change in Shore Hardness in Air			ISO 188
Shore D, 275°F, 1000 hr	0.0		
Shore D, 302°F, 168 hr	1.0		
Change in Volume (257°F, 70 hr, in IRM 903 Oil)	55	%	ASTM D471
Change in Volume (257°F, 70 hr, in IRM 903 Oil)	55	%	ISO 1817
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in, All Colors)	НВ		UL 94
Additional Information	Nominal Value	Unit	Test Method
Apparent Shear Viscosity - Capillary, @ 206/s			
392°F	310	Pa·s	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
Cylinder Zone 2 Temp.	356 to 401	°F
Cylinder Zone 3 Temp.	369 to 410	°F
Cylinder Zone 4 Temp.	369 to 410	°F
Melt Temperature	383 to 419	°F
Die Temperature	383 to 419	°F ANTINA
Take-Off Roll	68 to 122	°F,共有 NR 公销商
Extrusion Notes	YLAY	1417 - 58958519
Screen Pack: 20 to 60 mesh	一批朝生	诺尔曼语:027
Screw: general purpose	L'APEX TO	m联系
Compression Ratio: 3:1	TEKNOK TEKNORA Shshsl. S	*F *

### Teknor Apex Company - Thermoplastic Vulcanizate

#### Notes

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

#### Teknor Apex Company Corporate Headquarters

In U.S. for Vinyls, TPEs, Colorants, Engineered Thermoplastics (Chem Polymer) 505 Central Avenue Pawtucket, Rhode Island 02861 U.S.

Phone: 401-725-8000 Fax: 401-725-8095

Toll Free (U.S. only) 800-556-3864

info@teknorapex.com

#### Teknor Apex U.K. Ltd.

Tat Bank Road Oldbury, West Midlands B69 4NH England

Phone: (44) 121-665-2100 Fax: (44) 121-544-5530

etpsales@teknorapex.co.uk



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