

Teknor Apex Company - Thermoplastic Vulcanizate

Saturday, September 14, 2024

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® 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.

Material Status	 Commercial: Active 		
Availability	 Africa & Middle East Asia Pacific	 Europe Latin America	North America
Features	Chemical ResistantFatigue ResistantGood AdhesionGood Moldability	Good ProcessabilityGood Surface FinishGood Weather ResistanceHigh Hardness	Low DensityLow Specific GravityMedium Heat ResistanceResilient
Uses	 Automotive Applications Automotive Exterior Parts Automotive Interior Parts Automotive Under the Hood 	Blow Molding ApplicationsGrommetsIndustrial ApplicationsPlugs	 Profiles Weatherstripping
Agency Ratings	• UL 94		
RoHS Compliance	 RoHS Compliant 		
Automotive Specifications	 GM QK 000060 Type A Color: GM QK 3532 Type 2 Color: Na PSA Peugeot-Citroën B62 0300 RENAULT F.E.M. 03 20 007 C TOYOTA TSM 5529G Color: F VAG VW501 23 Color: Black VOLKSWAGEN TL 1010 Colo VOLKSWAGEN VW 50180 Color 	tural, Black Dversion G Color: Black olor: Black Black or: Black	
UL File Number	• QMFZ2.E54709		
Appearance	• Black	Natural Color	• Opaque
Forms	• Pellets		
Processing Method	Blow Molding	• Extrusion	Injection Molding

ASTM & ISO Properties ¹			
Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.938	g/cm³	ASTM D792
Density	0.940	g/cm³	ISO 1183
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
Across Flow: 100% Strain	8.89	MPa	
Flow: 100% Strain	13.3	MPa	
Tensile Stress			ISO 37
Across Flow: 100% Strain	8.90	MPa	
Flow: 100% Strain	13.3	MPa	
Tensile Strength			ASTM D412
Across Flow: Break	18.5	MPa	
Flow · Break	17.4	MP_2	

Revision Date: 4/9/2018

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 purchasers assume 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 by others. There is no warranty of merchantability and there are no other warranties for the products described.

Teknor Apex Company - Thermoplastic Vulcanizate

Tossile Surses	Elastomers	Nominal Value	Unit	Test Method
Flow: Break 17.4 MPa	Tensile Stress			ISO 37
Temsile Elongation	Across Flow : Break	18.5	MPa	
Across Flow: Break 700 % Flow: Strength - Across Flow 700 70	Flow: Break	17.4	MPa	
Flow : Break	Tensile Elongation			ASTM D412
Pensile Elongation	Across Flow : Break	700	%	
Across Flow : Break 700 % Flow : Break 400 % 700 Flow : Break 400 % 700	Flow: Break	400	%	
Flow: Break	Tensile Elongation			ISO 37
Tear Strength - Across Flow 102 kN/m ASTM D624 Tear Strength - Across Flow 101 kN/m 180 34-1 Compression Set 53 % 70°C, 22 br 67 % 128°C, 70 br 85 % Compression Set 180 815 23°C, 22 br 67 % 128°C, 20 br 67 % 128°C, 70 br 85 % Compression Set 180 815 23°C, 22 br 67 % 125°C, 70 br 85 % Hardnes 80 minal Value Unit Test Method Durometer Hardness Nominal Value Unit Test Method Durometer Hardness 38	Across Flow : Break	700	%	
Tear Strength - Across Flow ASTM D395 Compression Set 53 % 23°C, 22 hr 67 % 125°C, 70 hr 85 % Compression Set ISO 815 23°C, 22 hr 67 % 125°C, 70 hr 85 % Compression Set ISO 815 23°C, 22 hr 67 % 125°C, 70 hr 85 % Fardness Some D4	Flow: Break	400	%	
Compression Set 23°C, 22 hr 53 % 70°C, 22 hr 15°C, 70 hr 85 % 150 R15	Tear Strength - Across Flow	102	kN/m	ASTM D624
23°C, 22 hr 70°C, 22 hr 70°C, 22 hr 125°C, 70 hr Compression Set 1SO 815 23°C, 22 hr 70°C, 22 hr 125°C, 70 hr 15° 8 1SO 815 23°C, 22 hr 125°C, 70 hr 15° 8 1SO 815 23°C, 22 hr 125°C, 70 hr 18° 8 Nominal Value 10 it Test Method Durometer Hardness Shore D, 5 sec, Extruded 38 Shore D, 5 sec, Injection Molded 41 Thermal Nominal Value 11 Test Method RTI Elee \$50.0 °C UL 746B RTI Hmp \$50.0 °C UL 746B RTI Hmp \$50.0 °C UL 746B RTI Str Asign Nominal Value 11 Test Method Change in Tensile Strength in Air - Across Flow 135°C, 1000 hr 150°C, 168 hr 100% Strain, 135°C, 1000 hr 150°C, 168 hr 110% Strain, 135°C, 1000 hr 150°C, 168 hr 110% Strain 150°C, 168 hr 110% Strain 150°C, 168 hr 110% Strain 150°C, 168 hr 135°C, 1000 hr 150°C, 168 hr	Tear Strength - Across Flow ²	101	kN/m	ISO 34-1
70°C, 22 hr 15°C, 70 hr 18'5 % Compression Set 18O 815 23°C, 22 hr 15'3 % 70°C, 22 hr 16'7 % 23°C, 22 hr 16'7 % 70°C, 16'8 hr 10'7 %	Compression Set			ASTM D395
125°C, 70 hr	23°C, 22 hr	53	%	
SO 815 S	70°C, 22 hr	67	%	
23°C, 22 hr 53 % 70°C, 22 hr 67 % 125°C, 70 hr 85 % 125°C, 70 hr 125°C, 70 hr 185 % 125°C, 1000 hr 150°C, 168 hr 150°C, 1	125°C, 70 hr	85	%	
10°C, 22 hr				ISO 815
Hardness Nominal Value Unit Test Method	23°C, 22 hr	53	%	
Hardness Nominal Value Unit Test Method Durometer Hardness ASTM D2240 Shore D, 5 see, Extruded 38 Shore D, 5 see, Injection Molded 41 Shore D, 5 see, Extruded 38 Shore D, 5 see, Injection Molded 41 Thermal Nominal Value Unit Test Method RTI Elec 50.0 °C UL 746B RTI Imp 50.0 °C UL 746B RTI Str 50.0 °C UL 746B Aging Nominal Value Unit Test Method Change in Tensile Strength in Air - Across Flow ASTM D573 135°C, 1000 br -5.0 % 4 100% Strain, 155°C, 1000 br 9.0 % 4 150°C, 168 hr 11 5 100% Strain, 150°C, 168 hr 11 5 100% Strain 135°C, 1000 hr 9.0 % 5 150°C, 168 hr -7.0 % 5 100% Strain 150°C, 168 hr -7.0 % 5 100% Strain 150°C, 168 hr -7.0 % 5 100% Strain 150°C, 168 hr -7.0 % 6 </td <td>70°C, 22 hr</td> <td>67</td> <td>%</td> <td></td>	70°C, 22 hr	67	%	
Durometer Hardness ASTM D2240 Shore D, 5 sec, Extruded 38 Shore D, 5 sec, Injection Molded 41 Shore B, 5 sec, Injection Molded 1SO 868 Shore D, 5 sec, Extruded 38 Shore D, 5 sec, Injection Molded 41 Thermal Nominal Value Unit Test Method RTI Elec 50.0 °C UL 746B RTI Imp 50.0 °C UL 746B RTI Str 50.0 °C UL 746B Aging Nominal Value Unit Test Method Change in Tensile Strength in Air - Across Flow ASTM D573 135°C, 1000 hr -5.0 % ASTM D573 135°C, 1000 hr 9.0 % Strain, 150°C, 168 hr 11 % Change in Tensile Strength in Air - Across Flow ISO 188 ISO 188 135°C, 1000 hr 9.0 % ASTM D573 150°C, 168 hr 11 % ASTM D573 135°C, 1000 hr 9.0 % ASTM D573 135°C, 1000 hr 9.0 % ASTM D573 135°C, 168 hr 11 % ASTM D573 <td>125°C, 70 hr</td> <td>85</td> <td>%</td> <td></td>	125°C, 70 hr	85	%	
Shore D, 5 sec, Injection Molded 41 Shore Hardness ISO 868 Shore D, 5 sec, Injection Molded 38 Shore D, 5 sec, Injection Molded 41 Thermal Nominal Value Unit Test Method RTI Elec 50.0 °C UL 746B RTI Imp 50.0 °C UL 746B RTI Str 50.0 °C UL 746B Aging Nominal Value Unit Test Method Change in Tensile Strength in Air - Across Flow ASTM D573 135°C, 1000 hr 9.0 % Strain, 135°C, 1000 hr 100% Strain, 150°C, 168 hr 100% Strain, 150°C, 168 hr 150°C, 168 hr ISO 188 135°C, 1000 hr 9.0 % Strain 135°C, 1000 hr 5.0 % Strain 150°C, 168 hr ASTM D573 150°C, 168 hr 7.0 % ASTM D573 ASTM D573 135°C, 1000 hr 9.0 % ASTM D573 135°C, 1000 hr 9.0 % ASTM D573 135°C, 168 hr 7.0 % ASTM D573 135°C, 168 hr 8.0 % ASTM D573 135°C, 168 hr 8.0 %	Hardness	Nominal Value	Unit	Test Method
Shore D, 5 sec, Injection Molded 41 Shore Bardness ISO 868 Shore D, 5 sec, Extruded 38 Shore D, 5 sec, Injection Molded 41 Thermal Nominal Value Unit Test Method RTI Elec 50.0 °C UL 746B RTI Imp 50.0 °C UL 746B RTI Str 50.0 °C UL 746B Aging Nominal Value Unit Test Method Change in Tensile Strength in Air - Across Flow ASTM D573 ASTM D573 135°C, 1000 hr 5.0 % ASTM D573 150°C, 168 hr 7.0 % ISO 188 135°C, 1000 hr 5.0 % ISO 188 135°C, 1000 hr 5.0 % ISO 188 150°C, 168 hr 7.0 % ASTM D573 135°C, 1000 hr 9.0 % ASTM D573 135°C, 1000 hr	Durometer Hardness			ASTM D2240
Shore Hardness ISO 868 Shore D, 5 sec, Extruded 38 Shore D, 5 sec, Injection Molded 41 Thermal Nominal Value Unit Test Method RTI Elec 50.0 °C UL 746B RTI Imp 50.0 °C UL 746B RTI Str 50.0 °C UL 746B Aging Nominal Value Unit Test Method Change in Tensile Strength in Air - Across Flow ASTM D573 135°C, 1000 hr -5.0 % ** 100% Strain, 150°C, 168 hr -7.0 % ** 100% Strain, 150°C, 168 hr 11 % ** Change in Tensile Strength in Air - Across Flow ISO 188 ** 135°C, 1000 hr -5.0 % ** 100% Strain 135°C, 1000 hr 9.0 % ** 150°C, 168 hr 7.0 % ** 100% Strain 150°C, 168 hr 7.0 % ** 100% Strain 150°C, 168 hr 8.0 % ** 100% Strain 150°C, 168 hr 7.0 % ** 100% Strain 150°C, 168 hr 7.0 % **	Shore D, 5 sec, Extruded	38		
Shore D, 5 sec, Injection Molded 38 Shore D, 5 sec, Injection Molded 41 Thermal Nominal Value Unit Test Method RTI Elec 50.0 °C UL 746B RTI Imp 50.0 °C UL 746B RTI Str 50.0 °C UL 746B Aging Nominal Value Unit Test Method Change in Tensile Strength in Air - Across Flow ASTM D573 135°C, 1000 hr 5.0 % ** 150°C, 168 hr 7.0 % ** 150°C, 168 hr 11 % ** Change in Tensile Strength in Air - Across Flow ISO 188 ** 135°C, 1000 hr 5.0 % ** 100% Strain 135°C, 1000 hr 9.0 % ** 150°C, 168 hr 7.0 % ** 100% Strain 150°C, 168 hr 11 % ** Change in Ultimate Elongation in Air - Across Flow ASTM D573 ** 135°C, 1000 hr 90 % ** 150°C, 168 hr 89 % ** Change in Tensile Strain at Break in Air - Across Flow ISO 1	Shore D, 5 sec, Injection Molded	41		
Shore D, 5 sec, Injection Molded 41 Thermal Nominal Value Unit Test Method RTI Elec 50.0 °C UL 746B RTI Imp 50.0 °C UL 746B RTI Str 50.0 °C UL 746B Aging Nominal Value Unit Test Method Change in Tensile Strength in Air - Across Flow ASTM D573 135°C, 1000 hr 5.0 % * 150°C, 168 hr 7.0 % * 100% Strain, 150°C, 168 hr 11 % * Change in Tensile Strength in Air - Across Flow ISO 188 * 135°C, 1000 hr 5.0 % * * 100% Strain, 150°C, 168 hr 9.0 % * * 150°C, 168 hr 7.0 % * * 100% Strain 150°C, 168 hr 7.0 % * * 100% Strain 150°C, 168 hr 7.0 % * * 100% Strain 150°C, 168 hr 7.0 % * * 135°C, 1000 hr 90 % * * 150°C, 168 hr 90 %	Shore Hardness			ISO 868
Thermal Nominal Value Unit Test Method RTI Elec 50.0 °C UL 746B RTI Imp 50.0 °C UL 746B RTI Str 50.0 °C UL 746B Aging Nominal Value Unit Test Method Change in Tensile Strength in Air - Across Flow ASTM D573 ASTM D573 135°C, 1000 hr -5.0 % 4 150°C, 168 hr -7.0 % 5 100% Strain, 150°C, 168 hr 11 % 150°C, 168 hr 135°C, 1000 hr -5.0 % 5 100% Strain 135°C, 1000 hr 9.0 % 5 150°C, 168 hr 7.0 % 5 100% Strain 150°C, 168 hr 11 % 5 Change in Ultimate Elongation in Air - Across Flow ASTM D573 135°C, 1000 hr 90 % 6 150°C, 168 hr 90 % 6 150°C, 168 hr	Shore D, 5 sec, Extruded	38		
RTI Elec 50.0 °C UL 746B RTI Imp 50.0 °C UL 746B RTI Str 50.0 °C UL 746B Aging Nominal Value Unit Test Method Change in Tensile Strength in Air - Across Flow ASTM D573 135°C, 1000 hr -5.0 % 4 150°C, 168 hr -7.0 % 5 100% Strain, 150°C, 168 hr 11 % ISO 188 135°C, 1000 hr -5.0 % 100% Strain 135°C, 1000 hr 150°C, 168 hr ASTM D573 150°C, 168 hr -7.0 % 4 100% Strain 150°C, 168 hr 9.0 % 4 150°C, 168 hr 9.0 % ASTM D573 Change in Ultimate Elongation in Air - Across Flow ASTM D573 135°C, 1000 hr 90 % ASTM D573 150°C, 168 hr 89 % STM D573 Change in Tensile Strain at Break in Air - Across Flow ISO 188 135°C, 1000 hr 100% Strain 150°C, 168 hr 100% Strain 150°C, 168 hr	Shore D, 5 sec, Injection Molded	41		
RTI Imp 50.0 °C UL 746B RTI Str 50.0 °C UL 746B Aging Nominal Value Unit Test Method Change in Tensile Strength in Air - Across Flow ASTM D573 135°C, 1000 hr -5.0 % ASTM D573 150°C, 168 hr -7.0 % Strain, 150°C, 168 hr ISO 188 135°C, 1000 hr -5.0 % ISO 188 135°C, 1000 hr -5.0 % Strain 135°C, 1000 hr Strain 135°C, 1000 hr ASTM D573 150°C, 168 hr -7.0 % ASTM D573 150°C, 168 hr 11 % ASTM D573 135°C, 1000 hr 90 % ASTM D573 135°C, 1000 hr 90 % Strain 150°C, 168 hr ASTM D573 135°C, 1000 hr 89 % Strain at Break in Air - Across Flow ISO 188 Change in Tensile Strain at Break in Air - Across Flow 150 188 ISO 188	Thermal	Nominal Value	Unit	Test Method
RTI Str 50.0 °C UL 746B Aging Nominal Value Unit Test Method Change in Tensile Strength in Air - Across Flow ASTM D573 135°C, 1000 hr -5.0 % 100% Strain, 135°C, 1000 hr 9.0 % 150°C, 168 hr 11 % Change in Tensile Strength in Air - Across Flow ISO 188 135°C, 1000 hr -5.0 % 100% Strain 135°C, 1000 hr 9.0 % 150°C, 168 hr -7.0 % 100% Strain 150°C, 168 hr 11 % Change in Ultimate Elongation in Air - Across Flow ASTM D573 135°C, 1000 hr 90 % 150°C, 168 hr 89 % Change in Tensile Strain at Break in Air - Across Flow ISO 188 Change in Tensile Strain at Break in Air - Across Flow ISO 188	RTI Elec	50.0	°C	UL 746B
Aging Nominal Value Unit Test Method Change in Tensile Strength in Air - Across Flow -5.0 % ASTM D573 135°C, 1000 hr -5.0 % -5.0 % 100% Strain, 135°C, 1000 hr 9.0 % -6.0 % 100% Strain, 150°C, 168 hr 11 % ISO 188 Change in Tensile Strength in Air - Across Flow ISO 188 135°C, 1000 hr -5.0 % 100% Strain 135°C, 1000 hr 9.0 % -6.0 % -6.0 % -6.0 % 150°C, 168 hr -7.0 % -7.0 % -6.0 % <td>RTI Imp</td> <td>50.0</td> <td>°C</td> <td>UL 746B</td>	RTI Imp	50.0	°C	UL 746B
Change in Tensile Strength in Air - Across Flow ASTM D573 135°C, 1000 hr -5.0 % 100% Strain, 135°C, 1000 hr 9.0 % 150°C, 168 hr -7.0 % 100% Strain, 150°C, 168 hr 11 % Change in Tensile Strength in Air - Across Flow ISO 188 135°C, 1000 hr -5.0 % 100% Strain 135°C, 1000 hr 9.0 % 150°C, 168 hr -7.0 % 100% Strain 150°C, 168 hr 11 % Change in Ultimate Elongation in Air - Across Flow ASTM D573 135°C, 1000 hr 90 % 150°C, 168 hr 89 % Change in Tensile Strain at Break in Air - Across Flow ISO 188 135°C, 1000 hr -10 %	RTI Str	50.0	°C	UL 746B
135°C, 1000 hr -5.0 % 100% Strain, 135°C, 1000 hr 9.0 % 150°C, 168 hr -7.0 % 100% Strain, 150°C, 168 hr 11 % Change in Tensile Strength in Air - Across Flow ISO 188 135°C, 1000 hr -5.0 % 100% Strain 135°C, 1000 hr 9.0 % 150°C, 168 hr -7.0 % 100% Strain 150°C, 168 hr 11 % Change in Ultimate Elongation in Air - Across Flow ASTM D573 135°C, 1000 hr 90 % 150°C, 168 hr 89 % Change in Tensile Strain at Break in Air - Across Flow ISO 188 135°C, 1000 hr -10 %	Aging	Nominal Value	Unit	Test Method
100% Strain, 135°C, 1000 hr 9.0 % 150°C, 168 hr -7.0 % 100% Strain, 150°C, 168 hr 11 % Change in Tensile Strength in Air - Across Flow ISO 188 135°C, 1000 hr -5.0 % 100% Strain 135°C, 1000 hr 9.0 % 150°C, 168 hr -7.0 % 100% Strain 150°C, 168 hr 11 % Change in Ultimate Elongation in Air - Across Flow ASTM D573 135°C, 1000 hr 90 % 150°C, 168 hr 89 % Change in Tensile Strain at Break in Air - Across Flow ISO 188 135°C, 1000 hr -10 %	Change in Tensile Strength in Air - Across Flow			ASTM D573
150°C, 168 hr -7.0 % 100% Strain, 150°C, 168 hr 11 % Change in Tensile Strength in Air - Across Flow ISO 188 135°C, 1000 hr -5.0 % 100% Strain 135°C, 1000 hr 9.0 % 150°C, 168 hr -7.0 % 100% Strain 150°C, 168 hr 11 % Change in Ultimate Elongation in Air - Across Flow ASTM D573 135°C, 1000 hr 90 % 150°C, 168 hr 89 % Change in Tensile Strain at Break in Air - Across Flow ISO 188 135°C, 1000 hr -10 %	135°C, 1000 hr	-5.0	%	
100% Strain, 150°C, 168 hr 11 % Change in Tensile Strength in Air - Across Flow ISO 188 135°C, 1000 hr -5.0 % 100% Strain 135°C, 1000 hr 9.0 % 150°C, 168 hr -7.0 % 100% Strain 150°C, 168 hr 11 % Change in Ultimate Elongation in Air - Across Flow ASTM D573 135°C, 1000 hr 90 % 150°C, 168 hr 89 % Change in Tensile Strain at Break in Air - Across Flow ISO 188 135°C, 1000 hr -10 %	100% Strain, 135°C, 1000 hr	9.0	%	
Change in Tensile Strength in Air - Across Flow ISO 188 135°C, 1000 hr -5.0 % 100% Strain 135°C, 1000 hr 9.0 % 150°C, 168 hr -7.0 % 100% Strain 150°C, 168 hr 11 % Change in Ultimate Elongation in Air - Across Flow ASTM D573 135°C, 1000 hr 90 % 150°C, 168 hr 89 % Change in Tensile Strain at Break in Air - Across Flow ISO 188 135°C, 1000 hr -10 %	150°C, 168 hr	-7.0	%	
135°C, 1000 hr -5.0 % 100% Strain 135°C, 1000 hr 9.0 % 150°C, 168 hr -7.0 % 100% Strain 150°C, 168 hr 11 % Change in Ultimate Elongation in Air - Across Flow ASTM D573 135°C, 1000 hr 90 % 150°C, 168 hr 89 % Change in Tensile Strain at Break in Air - Across Flow ISO 188 135°C, 1000 hr -10 %	100% Strain, 150°C, 168 hr	11	%	
100% Strain 135°C, 1000 hr 9.0 % 150°C, 168 hr -7.0 % 100% Strain 150°C, 168 hr 11 % Change in Ultimate Elongation in Air - Across Flow ASTM D573 135°C, 1000 hr 90 % 150°C, 168 hr 89 % Change in Tensile Strain at Break in Air - Across Flow ISO 188 135°C, 1000 hr -10 %	Change in Tensile Strength in Air - Across Flow			ISO 188
150°C, 168 hr -7.0 % 100% Strain 150°C, 168 hr 11 % Change in Ultimate Elongation in Air - Across Flow ASTM D573 135°C, 1000 hr 90 % 150°C, 168 hr 89 % Change in Tensile Strain at Break in Air - Across Flow ISO 188 135°C, 1000 hr -10 %	135°C, 1000 hr	-5.0	%	
100% Strain 150°C, 168 hr 11 % Change in Ultimate Elongation in Air - Across Flow ASTM D573 135°C, 1000 hr 90 % 150°C, 168 hr 89 % Change in Tensile Strain at Break in Air - Across Flow ISO 188 135°C, 1000 hr -10 %	100% Strain 135°C, 1000 hr	9.0	%	
Change in Ultimate Elongation in Air - Across Flow ASTM D573 135°C, 1000 hr 90 % 150°C, 168 hr 89 % Change in Tensile Strain at Break in Air - Across Flow ISO 188 135°C, 1000 hr -10 %	150°C, 168 hr	-7.0	%	
135°C, 1000 hr 90 % 150°C, 168 hr 89 % Change in Tensile Strain at Break in Air - Across Flow ISO 188 135°C, 1000 hr -10 %	100% Strain 150°C, 168 hr	11	%	
150°C, 168 hr Change in Tensile Strain at Break in Air - Across Flow 135°C, 1000 hr ISO 188 -10 %	Change in Ultimate Elongation in Air - Across Flow			ASTM D573
Change in Tensile Strain at Break in Air - Across Flow 135°C, 1000 hr -10 %	135°C, 1000 hr	90	%	
135°C, 1000 hr -10 %	150°C, 168 hr	89	%	
	Change in Tensile Strain at Break in Air - Across Flow			ISO 188
150°C, 168 hr -11 %	135°C, 1000 hr	-10	%	
	150°C, 168 hr	-11	%	

Revision Date: 4/9/2018

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 purchasers assume 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 by others. There is no warranty of merchantability and there are no other warranties for the products described.

Teknor Apex Company - Thermoplastic Vulcanizate

Aging	Nominal Value	Unit	Test Method	
Change in Durometer Hardness in Air			ASTM D573	
Shore D, 135°C, 1000 hr	0.0			
Shore D, 150°C, 168 hr	1.0			
Change in Shore Hardness in Air			ISO 188	
Shore D, 135°C, 1000 hr	0.0			
Shore D, 150°C, 168 hr	1.0			
Change in Volume (125°C, 70 hr, in IRM 903 Oil)	55	%	ASTM D471	
Change in Volume (125°C, 70 hr, in IRM 903 Oil)	55	%	ISO 1817	
Flammability	Nominal Value	Unit	Test Method	
Flame Rating (1.5 mm, All Colors)	НВ		UL 94	
Additional Information	Nominal Value	Unit	Test Method	
Apparent Shear Viscosity - Capillary, @ 206/s				
200°C	310	Pa·s	ASTM D3835	
200°C	310	$Pa \cdot s$	ISO 11443	

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	82	°C	
Drying Time	3.0	hr	
Rear Temperature	180 to 215	°C	
Middle Temperature	180 to 215	°C	
Front Temperature	180 to 215	°C	
Nozzle Temperature	187 to 220	°C	
Processing (Melt) Temp	185 to 220	°C	
Mold Temperature	10 to 55	°C	
Back Pressure	0.100 to 1.00	MPa	
Screw Speed	100 to 200	rpm	
Extrusion	Nominal Value	Unit	
Drying Temperature	82	°C	
Drying Time	3.0	hr	
Cylinder Zone 1 Temp.	180 to 200	°C	
Cylinder Zone 2 Temp.	180 to 205	°C	
Cylinder Zone 3 Temp.	187 to 210	°C	
Cylinder Zone 4 Temp.	187 to 210	°C	
Melt Temperature	195 to 215	°C	
Die Temperature	195 to 215	°C	
Take-Off Roll	20 to 50	°C	
Extrusion Notes			

Screen Pack: 20 to 60 mesh Screw: general purpose Compression Ratio: 3:1

Revision Date: 4/9/2018

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 purchasers assume 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 by others. There is no warranty of merchantability and there are no other warranties for the products described.

Teknor Apex Company - Thermoplastic Vulcanizate

Notes

www.teknorapex.com info@teknorapex.com

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

² Method Ba, Angle (Unnicked)

Teknor Apex Company Corporate Headquarters	Teknor Apex B.V.	Teknor Apex (Suzhou) Advanced Polymer Compounds Co. Pte. Ltd.	Teknor Apex Asia Pacific PTE. LTD.
In U.S. for Vinyls, TPEs, Colorants,	Brightlands Chemelot Campus Umonderbaan 22	No. 78 Ping Sheng Road	41 Shipyard Road
Engineered Thermoplastics (Chem Polymer) 505 Central Avenue	6167 RD Geleen, Netherlands	Suzhou Industrial Park Jiangsu, China 215126	Singapore 628134
Pawtucket, Rhode Island 02861 U.S.	Phone: +31 46 7020 950		Phone: (65) 6265-2544
	Fax: +31 46 7020 990	Phone: (86) 512-6287-1550	Fax: (65) 6265-1821
Phone: 401-725-8000		Fax: (86) 512-6288-8371	
Fax: 401-725-8095	www.teknorapex.com		www.teknorapex.com
Toll Free (U.S. only) 800-556-3864	tpe@teknorapex.com	www.teknorapex.com infotaap@teknoapex.com	infotaap@teknorapex.com

Revision Date: 4/9/2018