

Teknor Apex Company - Thermoplastic Vulcanizate

Saturday, September 14, 2024

General Information

Product Description

The Sarlink TPV 5700B series are highly engineered extrusion-grade thermoplastic vulcanizates with outstanding UV stability designed for demanding automotive interior and exterior sealing applications, including glass run channels, waistbelts, weather strips, seals and other profiles. Sarlink TPV 5775B is a medium hardness, medium density, high performance grade with low fogging and excellent color retention and elastic properties.

Material Status	 Commercial: Active 		
Availability	 Africa & Middle East Asia Pacific	EuropeLatin America	North America
Additive	UV Stabilizer		
Features	Chemical ResistantGood ProcessabilityHigh Heat Resistance	 Low Compression Set Medium Density Medium Hardness	• Resilient
Uses	Automotive ApplicationsBelts/Belt Repair	 Profiles Rubber Replacement	 Seals Weatherstripping
Agency Ratings	• UL 94		
RoHS Compliance	 RoHS Compliant 		
Automotive Specifications	 CHRYSLER MS-AR-100 CG DAIMLER DBL 5562.30 Colo FORD WSS-M2D380-B1 GM GMP.E/P.057 GM QK 3523 L Color: Black GM Sarlink Color Color: Blac PSA Peugeot-Citroën B62 030 VAG VW501 23 Color: Black 	or: Black k 0 version G Color: Black	
UL File Number	• QMFZ2.E54709		
Appearance	• Black		
Forms	• Pellets		
Processing Method	Blow MoldingExtrusion	 Injection Molding Profile Extrusion	

ASTM & ISO Properties ¹			
Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.968	g/cm³	ASTM D792
Density	0.970	g/cm³	ISO 1183
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
Across Flow: 100% Strain	3.20	MPa	
Flow: 100% Strain	4.90	MPa	
Tensile Stress			ISO 37
Across Flow: 100% Strain	3.20	MPa	
Flow: 100% Strain	4.90	MPa	
Tensile Strength			ASTM D412
Across Flow: Break	8.48	MPa	
Flow: Break	7.31	MPa	
Tensile Stress			ISO 37
Across Flow: Break	8.50	MPa	
Flow: Break	7.30	MPa	

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

Elastomers	Nominal Value	Unit	Test Method
Tensile Elongation			ASTM D412
Across Flow: Break	590	%	
Flow: Break	340	%	
Tensile Elongation			ISO 37
Across Flow: Break	590	%	
Flow: Break	340	%	
Tear Strength - Across Flow	35.0	kN/m	ASTM D624
Tear Strength - Across Flow ²	35.0	kN/m	ISO 34-1
Compression Set			ASTM D395
23°C, 22 hr	23	%	
70°C, 22 hr	32	%	
125°C, 70 hr	47	%	
Compression Set			ISO 815
23°C, 22 hr	23	%	
70°C, 22 hr	32	%	
125°C, 70 hr	47		
Hardness	Nominal Value		Test Method
Durometer Hardness			ASTM D2240
Shore A, 5 sec, Extruded	72		
Shore A, 5 sec, Injection Molded	75		
Shore Hardness			ISO 868
Shore A, 5 sec, Extruded	72		
Shore A, 5 sec, Injection Molded	75		
Thermal	Nominal Value	Unit	Test Method
RTI Elec	50.0		UL 746B
RTI Imp	50.0		UL 746B
-	50.0		
RTI Str	50.0	·(·	III 746B
RTI Str	50.0 Naminal Value		UL 746B
Aging	50.0 Nominal Value		Test Method
Aging Change in Tensile Strength in Air - Across Flow	Nominal Value	Unit	
Aging Change in Tensile Strength in Air - Across Flow 135°C, 1000 hr	Nominal Value	Unit %	Test Method
Aging Change in Tensile Strength in Air - Across Flow 135°C, 1000 hr 100% Strain, 135°C, 1000 hr	Nominal Value -8.0 4.0	Unit % %	Test Method
Aging Change in Tensile Strength in Air - Across Flow 135°C, 1000 hr 100% Strain, 135°C, 1000 hr 150°C, 168 hr	-8.0 4.0 -10	Unit % % % % %	Test Method
Aging Change in Tensile Strength in Air - Across Flow 135°C, 1000 hr 100% Strain, 135°C, 1000 hr 150°C, 168 hr 100% Strain, 150°C, 168 hr	Nominal Value -8.0 4.0	Unit % % % % %	Test Method ASTM D573
Change in Tensile Strength in Air - Across Flow 135°C, 1000 hr 100% Strain, 135°C, 1000 hr 150°C, 168 hr 100% Strain, 150°C, 168 hr Change in Tensile Strength in Air - Across Flow	-8.0 4.0 -10 2.0	% % % % % %	Test Method
Change in Tensile Strength in Air - Across Flow 135°C, 1000 hr 100% Strain, 135°C, 1000 hr 150°C, 168 hr 100% Strain, 150°C, 168 hr Change in Tensile Strength in Air - Across Flow 135°C, 1000 hr	-8.0 4.0 -10 2.0	% % % % % % %	Test Method ASTM D573
Change in Tensile Strength in Air - Across Flow 135°C, 1000 hr 100% Strain, 135°C, 1000 hr 150°C, 168 hr 100% Strain, 150°C, 168 hr Change in Tensile Strength in Air - Across Flow 135°C, 1000 hr 100% Strain 135°C, 1000 hr	-8.0 4.0 -10 2.0 -8.0 4.0	% % % % % % % % % % %	Test Method ASTM D573
Change in Tensile Strength in Air - Across Flow 135°C, 1000 hr 100% Strain, 135°C, 1000 hr 150°C, 168 hr 100% Strain, 150°C, 168 hr Change in Tensile Strength in Air - Across Flow 135°C, 1000 hr 100% Strain 135°C, 1000 hr 150°C, 168 hr	-8.0 4.0 -10 2.0 -8.0 4.0 -10	% % % % % % % % % % % %	Test Method ASTM D573
Aging Change in Tensile Strength in Air - Across Flow 135°C, 1000 hr 100% Strain, 135°C, 1000 hr 150°C, 168 hr 100% Strain, 150°C, 168 hr Change in Tensile Strength in Air - Across Flow 135°C, 1000 hr 100% Strain 135°C, 1000 hr 150°C, 168 hr 100% Strain 150°C, 168 hr	-8.0 4.0 -10 2.0 -8.0 4.0	% % % % % % % % % % % %	Test Method ASTM D573 ISO 188
Change in Tensile Strength in Air - Across Flow 135°C, 1000 hr 100% Strain, 135°C, 1000 hr 150°C, 168 hr 100% Strain, 150°C, 168 hr Change in Tensile Strength in Air - Across Flow 135°C, 1000 hr 100% Strain 135°C, 1000 hr 150°C, 168 hr 100% Strain 150°C, 168 hr Change in Ultimate Elongation in Air - Across Flow	-8.0 4.0 -10 2.0 -8.0 4.0 -1.0 2.0	% % % % % % % % % % % % % % % % % % %	Test Method ASTM D573
Change in Tensile Strength in Air - Across Flow 135°C, 1000 hr 100% Strain, 135°C, 1000 hr 150°C, 168 hr 100% Strain, 150°C, 168 hr Change in Tensile Strength in Air - Across Flow 135°C, 1000 hr 100% Strain 135°C, 1000 hr 150°C, 168 hr 100% Strain 150°C, 168 hr Change in Ultimate Elongation in Air - Across Flow 135°C, 1000 hr	-8.0 4.0 -10 2.0 -8.0 4.0 -1.0 2.0 -7.0	% % % % % % % % % % % % % % % % % % %	Test Method ASTM D573 ISO 188
Change in Tensile Strength in Air - Across Flow 135°C, 1000 hr 100% Strain, 135°C, 1000 hr 150°C, 168 hr 100% Strain, 150°C, 168 hr Change in Tensile Strength in Air - Across Flow 135°C, 1000 hr 100% Strain 135°C, 1000 hr 150°C, 168 hr Change in Ultimate Elongation in Air - Across Flow 135°C, 1000 hr 150°C, 168 hr	-8.0 4.0 -10 2.0 -8.0 4.0 -1.0 2.0	% % % % % % % % % % % % % % % % % % %	Test Method ASTM D573 ISO 188 ASTM D573
Change in Tensile Strength in Air - Across Flow 135°C, 1000 hr 100% Strain, 135°C, 1000 hr 150°C, 168 hr 100% Strain, 150°C, 168 hr Change in Tensile Strength in Air - Across Flow 135°C, 1000 hr 100% Strain 135°C, 1000 hr 150°C, 168 hr Change in Ultimate Elongation in Air - Across Flow 135°C, 1000 hr 150°C, 168 hr Change in Ultimate Elongation in Air - Across Flow	-8.0 4.0 -10 2.0 -8.0 4.0 -1.0 2.0 -8.0 4.0 -1.0 2.0 -7.0 -1.1	% % % % % % % % % % % % % % % % % %	Test Method ASTM D573 ISO 188
Change in Tensile Strength in Air - Across Flow 135°C, 1000 hr 100% Strain, 135°C, 1000 hr 150°C, 168 hr 100% Strain, 150°C, 168 hr Change in Tensile Strength in Air - Across Flow 135°C, 1000 hr 100% Strain 135°C, 1000 hr 150°C, 168 hr 100% Strain 150°C, 168 hr Change in Ultimate Elongation in Air - Across Flow 135°C, 1000 hr 150°C, 168 hr Change in Tensile Strain at Break in Air - Across Flow 135°C, 1000 hr	-8.0 4.0 -10 2.0 -8.0 4.0 -10 2.0 -8.0 4.0 -10 2.10 -7.0 -7.0	% % % % % % % % % % % % % % % % % % %	Test Method ASTM D573 ISO 188 ASTM D573
Change in Tensile Strength in Air - Across Flow 135°C, 1000 hr 100% Strain, 135°C, 1000 hr 150°C, 168 hr 100% Strain, 150°C, 168 hr Change in Tensile Strength in Air - Across Flow 135°C, 1000 hr 100% Strain 135°C, 1000 hr 150°C, 168 hr 100% Strain 150°C, 168 hr Change in Ultimate Elongation in Air - Across Flow 135°C, 1000 hr 150°C, 168 hr Change in Tensile Strain at Break in Air - Across Flow 135°C, 1000 hr 150°C, 168 hr	-8.0 4.0 -10 2.0 -8.0 4.0 -1.0 2.0 -8.0 4.0 -1.0 2.0 -7.0 -1.1	% % % % % % % % % % % % % % % % % % %	Test Method ASTM D573 ISO 188 ISO 188
Change in Tensile Strength in Air - Across Flow 135°C, 1000 hr 100% Strain, 135°C, 1000 hr 150°C, 168 hr 100% Strain, 150°C, 168 hr Change in Tensile Strength in Air - Across Flow 135°C, 1000 hr 100% Strain 135°C, 1000 hr 150°C, 168 hr Change in Ultimate Elongation in Air - Across Flow 135°C, 1000 hr 150°C, 168 hr Change in Tensile Strain at Break in Air - Across Flow 135°C, 1000 hr 150°C, 168 hr Change in Tensile Strain at Break in Air - Across Flow 135°C, 1000 hr 150°C, 168 hr Change in Durometer Hardness in Air	-8.0 4.0 -10 2.0 -8.0 4.0 -10 2.0 -7.0 -11	% % % % % % % % % % % % % % % % % % %	Test Method ASTM D573 ISO 188 ASTM D573
Change in Tensile Strength in Air - Across Flow 135°C, 1000 hr 100% Strain, 135°C, 1000 hr 150°C, 168 hr 100% Strain, 150°C, 168 hr Change in Tensile Strength in Air - Across Flow 135°C, 1000 hr 100% Strain 135°C, 1000 hr 150°C, 168 hr 100% Strain 150°C, 168 hr Change in Ultimate Elongation in Air - Across Flow 135°C, 1000 hr 150°C, 168 hr Change in Tensile Strain at Break in Air - Across Flow 135°C, 1000 hr 150°C, 168 hr	-8.0 4.0 -10 2.0 -8.0 4.0 -10 2.0 -8.0 4.0 -10 2.10 -7.0 -7.0	% % % % % % % % % % % % % % % % % % %	Test Method ASTM D573 ISO 188 ISO 188

Revision Date: 3/26/2019

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 Shore Hardness in Air			ISO 188
Shore A, 135°C, 1000 hr	3.0		
Shore A, 150°C, 168 hr	2.0		
Change in Volume (125°C, 70 hr, in IRM 903 Oil)	88	%	ASTM D471
Change in Volume (125°C, 70 hr, in IRM 903 Oil)	88	%	ISO 1817
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.5 mm, Black)	НВ		UL 94
Additional Information	Nominal Value	Unit	Test Method
Apparent Shear Viscosity - Capillary @ 206/s			
200°C	330	Pa·s	ASTM D3835
	220	Pa·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 - Desiccant Dryer	82	°C	
Drying Time - Desiccant Dryer	3.0	hr	
Dew Point - Desiccant Dryer	-40	°C	
Rear Temperature	177 to 216	°C	
Middle Temperature	177 to 216	°C	
Front Temperature	177 to 216	°C	
Nozzle Temperature	188 to 221	°C	
Processing (Melt) Temp	182 to 221	°C	
Mold Temperature	10 to 66	°C	
Back Pressure	0.0689 to 1.03	MPa	
Screw Speed	100 to 200	rpm	
Screw L/D Ratio	20.0:1.0		
Extrusion	Nominal Value	Unit	
Drying Temperature	82	°C	
Drying Time	3.0	hr	
Cylinder Zone 1 Temp.	182 to 204	°C	
Cylinder Zone 2 Temp.	182 to 204	°C	
Cylinder Zone 3 Temp.	188 to 210	°C	
Cylinder Zone 4 Temp.	188 to 210	°C	
Melt Temperature	193 to 216	°C	
Die Temperature	193 to 216	°C	
Take-Off Roll	21 to 49	°C	
Extrusion Notes			

Use -40C dew point dessicant drying equipment; Screen Pack: 20 to 60 mesh; Screw: 3:1 Compression Ratio

Notes

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

Revision Date: 3/26/2019

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.

² Method Ba, Angle (Unnicked)

info@teknorapex.com

Teknor Apex Company - Thermoplastic Vulcanizate

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: 3/26/2019