

### 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 5765B is a medium hardness, medium density, high performance grade with low fogging and excellent color retention and elastic properties.

General							
Material Status	Commercial: Active						
A 11-1-1114	Asia Pacific	Latin America					
Availability	• Europe	<ul> <li>North America</li> </ul>					
	Chemical Resistant	High Melt Stability	Medium Hardness				
Features	<ul> <li>Good Processability</li> </ul>	<ul> <li>High Tensile Strength</li> </ul>	<ul> <li>Resilient</li> </ul>				
	<ul> <li>High Heat Resistance</li> </ul>	<ul> <li>Medium Density</li> </ul>	<ul> <li>UV Resistant</li> </ul>				
Uses	Automotive Applications	Rubber Replacement	Weatherstripping				
Uses	<ul> <li>Profiles</li> </ul>	• Seals	• weatherstripping				
Agency Ratings	• UL 94						
RoHS Compliance	<ul> <li>RoHS Compliant</li> </ul>						
	<ul> <li>BMW Mini/BMW Unspecifie</li> </ul>	d Color: Black					
	<ul> <li>BMW Unspecified Color: Bla</li> </ul>						
CHRYSLER MS-AR-100 BGV Color: Black							
	<ul> <li>DAIMLER DBL 5562.30 Col</li> </ul>	DAIMLER DBL 5562.30 Color: Black					
	<ul> <li>FORD WSS-M2D379-B1</li> </ul>	• FORD WSS-M2D379-B1					
	• GM GMP.E/P.029						
	<ul> <li>GM GMW15812P-TPV(EPD)</li> </ul>	M+PP) Type 5E Color: Black					
	<ul> <li>GM GMW15812P-TPV(EPDM+PP) Type 5M Color: Black</li> <li>GM QK 003521 L Color: Black</li> </ul>						
Automotive Specifications							
	<ul> <li>HONDA Unspecified Color: Black</li> <li>NISSAN NES M7075 Color: Black</li> </ul>						
<ul> <li>PSA Peugeot-Citroën B62 0300 version G Color: Black</li> </ul>		00 version G Color: Black					
<ul> <li>RENAULT F.R.M. 7A-10-A11 Color: Black</li> <li>TOYOTA TSM 1707G-7 Color: Black</li> <li>TOYOTA TSM 5746G-3 Color: Black</li> </ul>							
					<ul> <li>VAG VW501 23 Color: Black</li> </ul>		
					VOLVO STD 318-06010 Color: Black		
UL File Number	• QMFZ2.E54709						
Appearance	• Black						
Forms	• Pellets						
Processing Method	Blow Molding	• Extrusion	Injection Molding				

ASTM & ISO Properties <sup>1</sup>			
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	2.70	MPa	
Flow: 100% Strain	4.20	MPa	
Tensile Stress			ISO 37
Across Flow: 100% Strain	2.70	MPa	
Flow: 100% Strain	4.20	MPa	

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.

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Elastomers	Nominal Value	Unit	<b>Test Method</b>
Tensile Strength			ASTM D412
Across Flow : Break	7.10	MPa	
Flow: Break	6.30	MPa	
Tensile Stress			ISO 37
Break	7.10	MPa	
Flow: Break	6.30	MPa	
Tensile Elongation			ASTM D412
Across Flow : Break	570	%	
Flow: Break	320	%	
Tensile Elongation			ISO 37
Across Flow: Break	570	%	
Flow: Break	320	%	
Tear Strength - Across Flow	29.8	kN/m	ASTM D624
Tear Strength - Across Flow <sup>2</sup>	29.0	kN/m	ISO 34-1
Compression Set			ASTM D395
23°C, 22 hr	21	%	
70°C, 22 hr	30		
125°C, 70 hr	44		
Compression Set			ISO 815
23°C, 22 hr	21	%	
70°C, 22 hr	30		
125°C, 70 hr	44		
Hardness	Nominal Value		Test Method
Durometer Hardness			ASTM D2240
Shore A, 5 sec, Extruded	65		
Shore A, 5 sec, Injection Molded	68		
Shore Hardness			ISO 868
Shore A, 5 sec, Extruded	65		
Shore A, 5 sec, Injection Molded	68		
Thermal	Nominal Value	Unit	Test Method
RTI Elec	50.0		UL 746B
RTI Imp	50.0		UL 746B
RTI Str	50.0		UL 746B
Aging	Nominal Value		Test Method
Change in Tensile Strength in Air - Across Flow	110mmai value		ASTM D573
135°C, 1000 hr	5.0	0/0	AUTINI DJ/J
100% Strain, 135°C, 1000 hr	-13		
150°C, 168 hr	-13 -4.0		
100% Strain, 150°C, 168 hr	-4.0 -7.0		
Change in Tensile Strength in Air - Across Flow	-7.0	/ <b>U</b>	ISO 188
100% Strain 57°C, 1000 hr	5.0	0/0	150 100
66°C, 168 hr	-13		
	-13 -4.0		
100% Strain 66°C, 168 hr			
135°C, 1000 hr	-7.0	70	ACTM DE72
Change in Ultimate Elongation in Air - Across Flow	2.0	0/	ASTM D573
135°C, 1000 hr	-2.0		
150°C, 168 hr	-5.0	70	

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Aging	Nominal Value	Unit	Test Method
Change in Tensile Strain at Break in Air - Across Flow			ISO 188
57°C, 1000 hr	-2.0	%	
150°C, 168 hr	-5.0	%	
Change in Durometer Hardness in Air			ASTM D573
Shore A, 135°C, 1000 hr	2.0		
Shore A, 150°C, 168 hr	1.0		
Change in Shore Hardness in Air			ISO 188
Shore A, 57°C, 1000 hr	2.0		
Shore A, 150°C, 168 hr	1.0		
Change in Volume (125°C, 70 hr, in IRM 903 Oil)	91	%	ASTM D471
Change in Volume (125°C, 70 hr, in IRM 903 Oil)	91	%	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	340	Pa·s	ASTM D3835
200°C	340	Pa·s	ISO 11443

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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	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	
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#### **Extrusion Notes**

info@teknorapex.com

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.

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