



Sarlink® TPV 5740DB

Teknor Apex Company - Thermoplastic Vulcanizate

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 5740DB is a high hardness, medium density, high performance grade with low fogging and excellent color retention and elastic properties.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Additive	• UV Stabilizer		
Features	• Chemical Resistant • High Hardness • High Heat Resistance	• High Tensile Strength • Low Compression Set • Medium Density	• Resilient • UV Resistant
Uses	• Automotive Applications • Belts/Belt Repair	• Profiles • Rubber Replacement	• Seals • Weatherstripping
RoHS Compliance	• RoHS Compliant		
Automotive Specifications	• BMW Mini/BMW Unspecified Color: Black • GM GMW15812, Type 9 Color: Black	• STELLANTIS B62 0300 Color: Black • TOYOTA TSM 5746G-1 Color: Black	
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Blow Molding • Extrusion	• Injection Molding • Profile Extrusion	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.960		ASTM D792
Density	0.960	g/cm ³	ISO 1183
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
Across Flow : 100% Strain	1310	psi	
Flow : 100% Strain	1930	psi	
Tensile Stress			ISO 37
Across Flow : 100% Strain	1310	psi	
Flow : 100% Strain	1930	psi	
Tensile Strength			ASTM D412
Across Flow : Break	2760	psi	
Flow : Break	2610	psi	
Tensile Stress			ISO 37
Across Flow : Break	2760	psi	
Flow : Break	2610	psi	
Tensile Elongation			ASTM D412
Across Flow : Break	640	%	
Flow : Break	490	%	

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Elastomers	Nominal Value	Unit	Test Method
Tensile Elongation			ISO 37
Across Flow : Break	640	%	
Flow : Break	490	%	
Tear Strength - Across Flow	500	lbf/in	ASTM D624
Tear Strength - Across Flow ²	502	lbf/in	ISO 34-1
Compression Set			ASTM D395
73°F, 22 hr	46	%	
158°F, 22 hr	58	%	
257°F, 70 hr	80	%	
Compression Set			ISO 815
73°F, 22 hr	46	%	
158°F, 22 hr	58	%	
257°F, 70 hr	80	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore D, 5 sec, Extruded	38		
Shore D, 5 sec, Injection Molded	40		
Shore Hardness			ISO 868
Shore D, 5 sec, Extruded	38		
Shore D, 5 sec, Injection Molded	40		
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air - Across Flow			ASTM D573
275°F, 1000 hr	-20	%	
100% Strain, 275°F, 1000 hr	9.0	%	
302°F, 168 hr	-22	%	
100% Strain, 302°F, 168 hr	5.0	%	
Change in Tensile Strength in Air - Across Flow			ISO 188
275°F, 1000 hr	-20	%	
100% Strain 275°F, 1000 hr	9.0	%	
302°F, 168 hr	-22	%	
100% Strain 302°F, 168 hr	5.0	%	
Change in Ultimate Elongation in Air - Across Flow			ASTM D573
275°F, 1000 hr	-25	%	
302°F, 168 hr	-25	%	
Change in Tensile Strain at Break in Air - Across Flow			ISO 188
275°F, 1000 hr	-25	%	
302°F, 168 hr	-25	%	
Change in Durometer Hardness in Air			ASTM D573
Shore D, 275°F, 1000 hr	3.0		
Shore D, 302°F, 168 hr	3.0		
Change in Shore Hardness in Air			ISO 188
Shore D, 275°F, 1000 hr	3.0		
Shore D, 302°F, 168 hr	3.0		
Change in Volume (257°F, 70 hr, in IRM 903 Oil)	47	%	ASTM D471
Change in Volume (257°F, 70 hr, in IRM 903 Oil)	47	%	ISO 1817

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Additional Information	Nominal Value	Unit	Test Method
Apparent Shear Viscosity - Capillary @ 206/s			
392°F	400	Pa·s	ASTM D3835
392°F	400	Pa·s	ISO 11443

Processing Information			
Injection	Nominal Value	Unit	
Drying Temperature	180	°F	
Drying Time	3.0	hr	
Rear Temperature	350 to 420	°F	
Middle Temperature	350 to 420	°F	
Front Temperature	350 to 420	°F	
Nozzle Temperature	370 to 430	°F	
Processing (Melt) Temp	360 to 430	°F	
Mold Temperature	50 to 150	°F	
Back Pressure	10.0 to 150	psi	
Screw Speed	100 to 200	rpm	
Screw L/D Ratio	20.0:1.0		
Extrusion	Nominal Value	Unit	
Drying Temperature	180	°F	
Drying Time	3.0	hr	
Cylinder Zone 1 Temp.	360 to 400	°F	
Cylinder Zone 2 Temp.	360 to 400	°F	
Cylinder Zone 3 Temp.	370 to 410	°F	
Cylinder Zone 4 Temp.	370 to 410	°F	
Melt Temperature	380 to 420	°F	
Die Temperature	380 to 420	°F	
Take-Off Roll	70 to 120	°F	

Extrusion Notes
Screen Pack: 20 to 60 mesh
Screw: 3:1 Compression Ratio

Notes

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

² Method Ba, Angle (Unnicked)