



Sarlink® TPV 5750DB

Teknor Apex Company - Thermoplastic Vulcanizate

General Information

Product Description

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 5750DB is a medium hardness, medium density, high performance grade with low fogging and excellent color retention and elastic properties.

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific • Europe	• Latin America • North America	
Features	• Chemical Resistant • High Hardness	• High Heat Resistance • High Tensile Strength	
Uses	• Belts/Belt Repair • Profiles	• Seals • Weatherstripping	
RoHS Compliance	• RoHS Compliant		
Automotive Specifications	• GM GMP.E/P.016 Color: Black	• GM GMW15812P-TPV(EPDM +PP) Type 10E 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	1900	psi	
Flow : 100% Strain	2610	psi	
Tensile Stress			ISO 37
Across Flow : 100% Strain	1900	psi	
Flow : 100% Strain	2610	psi	
Tensile Strength			ASTM D412
Across Flow : Break	3340	psi	
Flow : Break	3120	psi	
Tensile Stress			ISO 37
Across Flow : Break	3340	psi	
Flow : Break	3120	psi	
Tensile Elongation			ASTM D412
Across Flow : Break	640	%	
Flow : Break	490	%	
Tensile Elongation			ISO 37
Across Flow : Break	640	%	
Flow : Break	490	%	
Tear Strength - Across Flow	810	lbf/in	ASTM D624
Tear Strength - Across Flow ²	805	lbf/in	ISO 34-1

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Elastomers	Nominal Value	Unit	Test Method
Compression Set			ASTM D395
73°F, 22 hr	55	%	
158°F, 22 hr	67	%	
257°F, 70 hr	85	%	
Compression Set			ISO 815
73°F, 22 hr	55	%	
158°F, 22 hr	67	%	
257°F, 70 hr	85	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore D, 5 sec, Extruded	49		
Shore D, 5 sec, Injection Molded	52		
Shore Hardness			ISO 868
Shore D, 5 sec, Extruded	49		
Shore D, 5 sec, Injection Molded	52		
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	24	%	
302°F, 168 hr	-16	%	
100% Strain, 302°F, 168 hr	15	%	
Change in Tensile Strength in Air - Across Flow			ISO 188
275°F, 1000 hr	-20	%	
100% Strain 275°F, 1000 hr	24	%	
302°F, 168 hr	-16	%	
100% Strain 302°F, 168 hr	15	%	
Change in Ultimate Elongation in Air - Across Flow			ASTM D573
275°F, 1000 hr	-30	%	
302°F, 168 hr	-25	%	
Change in Tensile Strain at Break in Air - Across Flow			ISO 188
275°F, 1000 hr	-30	%	
302°F, 168 hr	-25	%	
Change in Durometer Hardness in Air			ASTM D573
Shore D, 275°F, 1000 hr	4.0		
Shore D, 302°F, 168 hr	3.0		
Change in Shore Hardness in Air			ISO 188
Shore D, 275°F, 1000 hr	4.0		
Shore D, 302°F, 168 hr	3.0		
Change in Volume (257°F, 70 hr, in IRM 903 Oil)	38	%	ASTM D471
Change in Volume (257°F, 70 hr, in IRM 903 Oil)	38	%	ISO 1817
Additional Information	Nominal Value	Unit	Test Method
Apparent Shear Viscosity - Capillary @ 206/s			
392°F	430	Pa·s	ASTM D3835
392°F	430	Pa·s	ISO 11443

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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
Cylinder Zone 5 Temp.	380 to 420	°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)