



Sarlink® TPV X4765B42

Teknor Apex Company - Thermoplastic Vulcanizate

General Information

Product Description

The Sarlink TPV 4700 Series are very high flow injection molding engineering grades with excellent UV resistance, elasticity, and surface aesthetics designed for demanding automotive applications including window encapsulation and exterior parts. Sarlink® TPV X4765B42 is a black, medium hardness, low density thermoplastic vulcanizate suited for injection molding applications that require superior flow properties.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Chemical Resistant • Good Flexibility • Good Processability • High Flow	• High Melt Stability • Low Density • Low Specific Gravity • Medium Hardness	• Resilient • UV Resistant • Weather Resistant
Uses	• Automotive Applications • Automotive Exterior Parts	• Automotive Window Encapsulation • Rubber Replacement	
RoHS Compliance	• RoHS Compliant		
Automotive Specifications	• BMW Unspecified Color: Black • DAIMLER DBL 5562.30 Color: Black	• DBL 5556.21 DBL 5422 Color: Black • JAGUAR STJLR-51.5301	• VAG VW501 23 Color: Black • VOLKSWAGEN VW 50180 Color: Black
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.910		ASTM D792
Density	0.910	g/cm³	ISO 1183
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			
Across Flow : 100% Strain	334	psi	ASTM D412
Across Flow : 100% Strain	334	psi	ISO 37
Flow : 100% Strain	421	psi	ASTM D412
Flow : 100% Strain	421	psi	ISO 37
Tensile Stress			
Across Flow : Break	740	psi	ASTM D412
Across Flow : Break	740	psi	ISO 37
Flow : Break	711	psi	ASTM D412
Flow : Break	711	psi	ISO 37
Tensile Elongation			
Across Flow : Break	400	%	ASTM D412
Across Flow : Break	400	%	ISO 37
Flow : Break	340	%	ASTM D412
Flow : Break	340	%	ISO 37
Tear Strength - Across Flow			
--	140	lbf/in	ASTM D624
-- 2	140	lbf/in	ISO 34-1

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Elastomers	Nominal Value	Unit	Test Method
Compression Set			
73°F, 22 hr	23	%	ASTM D395
73°F, 22 hr	23	%	ISO 815
158°F, 22 hr	32	%	ASTM D395
158°F, 22 hr	32	%	ISO 815
257°F, 70 hr	48	%	ASTM D395
257°F, 70 hr	48	%	ISO 815
Hardness	Nominal Value	Unit	Test Method
Shore Hardness			
Shore A, 5 sec, Extruded	62		ASTM D2240
Shore A, 5 sec, Extruded	62		ISO 868
Shore A, 5 sec, Injection Molded	65		ASTM D2240
Shore A, 5 sec, Injection Molded	65		ISO 868
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air - Across Flow			
275°F, 1000 hr	-18	%	ASTM D573
275°F, 1000 hr	-18	%	ISO 188
100% Strain 275°F, 1000 hr	1.0	%	ASTM D573
100% Strain 275°F, 1000 hr	1.0	%	ISO 188
302°F, 168 hr	-20	%	ASTM D573
302°F, 168 hr	-20	%	ISO 188
100% Strain 302°F, 168 hr	0.0	%	ASTM D573
100% Strain 302°F, 168 hr	0.0	%	ISO 188
Change in Tensile Strain at Break in Air - Across Flow			
275°F, 1000 hr	-22	%	ASTM D573
275°F, 1000 hr	-22	%	ISO 188
302°F, 168 hr	-24	%	ASTM D573
302°F, 168 hr	-24	%	ISO 188
Change in Shore Hardness in Air			
Shore A, 275°F, 1000 hr	1.0		ASTM D573
Shore A, 275°F, 1000 hr	1.0		ISO 188
Shore A, 302°F, 168 hr	1.0		ASTM D573
Shore A, 302°F, 168 hr	1.0		ISO 188
Change in Volume			
275°F, 70 hr, in IRM 903 Oil	84	%	ISO 1817
275°F, 70 hr, in IRM 903 Oil	84	%	ASTM D471
Additional Information	Nominal Value	Unit	Test Method
Apparent Shear Viscosity - Capillary, @ 206/s			
392°F	210	Pa·s	ASTM D3835
392°F	210	Pa·s	ISO 11443

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Processing Information		
Injection	Nominal Value	Unit
Rear Temperature	356 to 401	°F
Middle Temperature	356 to 401	°F
Front Temperature	356 to 401	°F
Nozzle Temperature	365 to 410	°F
Processing (Melt) Temp	365 to 410	°F
Mold Temperature	50 to 131	°F
Back Pressure	14.5 to 145	psi
Screw Speed	100 to 200	rpm

Notes

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

² Method Ba, Angle (Unnicked)