

Sarlink® TPV 4765B42

Teknor Apex Company - Thermoplastic Vulcanizate

Saturday, September 14, 2024

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 4765B42 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 • Good Weather Resistance	• High Flow • High Melt Stability • Low Density • Low Specific Gravity	• Medium Hardness • Resilient • UV Resistant
Uses	• Automotive Applications • Automotive Exterior Parts	• Automotive Window Encapsulation • Rubber Replacement	
RoHS Compliance	• RoHS Compliant		
Automotive Specifications	• BMW Unspecified Color: Black • DAIMLER DBL 5422 Color: Black	• DAIMLER DBL 5562.30 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 Properties¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.908	g/cm ³	ASTM D792
Density	0.910	g/cm ³	ISO 1183
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			
Across Flow : 100% Strain	2.30	MPa	ISO 37
Across Flow : 100% Strain	2.30	MPa	ASTM D412
Flow : 100% Strain	2.90	MPa	ISO 37
Flow : 100% Strain	2.90	MPa	ASTM D412
Tensile Stress			
Across Flow : Break	5.10	MPa	ISO 37
Across Flow : Break	5.10	MPa	ASTM D412
Flow : Break	4.90	MPa	ISO 37
Flow : Break	4.90	MPa	ASTM D412
Tensile Elongation			
Across Flow : Break	400	%	ISO 37
Across Flow : Break	400	%	ASTM D412
Flow : Break	340	%	ISO 37
Flow : Break	340	%	ASTM D412
Tear Strength - Across Flow			
--	24.5	kN/m	ASTM D624
-- ²	25.0	kN/m	ISO 34-1

Revision Date: 11/26/2019

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Elastomers	Nominal Value	Unit	Test Method
Compression Set			
23°C, 22 hr	23	%	ASTM D395
23°C, 22 hr	23	%	ISO 815
70°C, 22 hr	32	%	ISO 815
70°C, 22 hr	32	%	ASTM D395
125°C, 70 hr	48	%	ISO 815
125°C, 70 hr	48	%	ASTM D395
Hardness	Nominal Value	Unit	Test Method
Shore Hardness			
Shore A, 5 sec, Extruded	62		ISO 868
Shore A, 5 sec, Extruded	62		ASTM D2240
Shore A, 5 sec, Injection Molded	65		ISO 868
Shore A, 5 sec, Injection Molded	65		ASTM D2240
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air - Across Flow			
135°C, 1000 hr	-18	%	ISO 188
135°C, 1000 hr	-18	%	ASTM D573
100% Strain 135°C, 1000 hr	1.0	%	ISO 188
100% Strain 135°C, 1000 hr	1.0	%	ASTM D573
150°C, 168 hr	-20	%	ISO 188
150°C, 168 hr	-20	%	ASTM D573
100% Strain 150°C, 168 hr	0.0	%	ISO 188
100% Strain 150°C, 168 hr	0.0	%	ASTM D573
Change in Tensile Strain at Break in Air - Across Flow			
135°C, 1000 hr	-22	%	ISO 188
135°C, 1000 hr	-22	%	ASTM D573
150°C, 168 hr	-24	%	ISO 188
150°C, 168 hr	-24	%	ASTM D573
Change in Shore Hardness in Air			
Shore A, 135°C, 1000 hr	1.0		ISO 188
Shore A, 135°C, 1000 hr	1.0		ASTM D573
Shore A, 150°C, 168 hr	1.0		ISO 188
Shore A, 150°C, 168 hr	1.0		ASTM D573
Change in Volume			
135°C, 70 hr, in IRM 903 Oil	84	%	ASTM D471
135°C, 70 hr, in IRM 903 Oil	84	%	ISO 1817
Additional Information	Nominal Value	Unit	Test Method
Apparent Shear Viscosity - Capillary, @ 206/s			
200°C	210	Pa·s	ISO 11443
200°C	210	Pa·s	ASTM D3835

Legal Statement

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Processing Information

Injection	Nominal Value	Unit
Drying Temperature - Desiccant Dryer	82	°C
Drying Time - Desiccant Dryer	3.0 to 4.0	hr
Dew Point - Desiccant Dryer	-40	°C
Suggested Shot Size	25 to 50	%
Rear Temperature	180 to 210	°C
Middle Temperature	190 to 220	°C
Front Temperature	200 to 240	°C
Nozzle Temperature	210 to 240	°C
Processing (Melt) Temp	210 to 240	°C
Mold Temperature	10 to 55	°C
Back Pressure	0.100 to 1.00	MPa
Screw Speed	100 to 200	rpm

Notes

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

² Method Ba, Angle (Unnicked)

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