Sarlink® TPV 4785B40

Teknor Apex Company - Thermoplastic Vulcanizate

Saturday, September 14, 2024

General Information

Product Description

The Sarlink TPV 4700 Series are 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 4785B40 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
Additive	• UV Stabilizer		
Features	• Chemical Resistant • Good Flexibility • Good Processability	• High Flow • High Hardness • High Heat Resistance	• Low Compression Set • Low Density • Low Specific Gravity
Uses	• Automotive Applications • Automotive Exterior Parts	• Automotive Window Encapsulation • Rubber Replacement	
RoHS Compliance	• RoHS Compliant		
Automotive Specifications	• GM GMW15812P-TPV(EPDM +PP) Type 8M Color: Black	• VAG VW501 23 Color: Black	
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.908	g/cm³	ASTM D792
Density	0.910	g/cm³	ISO 1183
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress			ASTM D412
Across Flow : 100% Strain	4.80	MPa	
Flow : 100% Strain	5.50	MPa	
Tensile Stress			ISO 37
Across Flow : 100% Strain	4.80	MPa	
Flow : 100% Strain	5.50	MPa	
Tensile Strength			ASTM D412
Across Flow : Break	9.51	MPa	
Flow : Break	8.89	MPa	
Tensile Stress			ISO 37
Across Flow : Break	9.50	MPa	
Flow : Break	8.90	MPa	
Tensile Elongation			ASTM D412
Across Flow : Break	540	%	
Flow : Break	450	%	
Tensile Elongation			ISO 37
Across Flow : Break	540	%	
Flow : Break	450	%	
Tear Strength - Across Flow	40.3	kN/m	ASTM D624
Tear Strength - Across Flow [2]	40.0	kN/m	ISO 34-1

Revision Date: 9/29/2023

Sarlink® TPV 4785B40

Teknor Apex Company - Thermoplastic Vulcanizate

Elastomers	Nominal Value	Unit	Test Method
Compression Set			ASTM D395
23°C, 22 hr	32	%	
70°C, 22 hr	44	%	
125°C, 70 hr	72	%	
Compression Set			ISO 815
23°C, 22 hr	32	%	
70°C, 22 hr	44	%	
125°C, 70 hr	72	%	

Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 5 sec, Extruded	84		
Shore A, 5 sec, Injection Molded	86		
Shore Hardness			ISO 868
Shore A, 5 sec, Extruded	84		
Shore A, 5 sec, Injection Molded	86		

Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air - Across Flow			ASTM D573
135°C, 1000 hr	-4.0	%	
100% Strain, 135°C, 1000 hr	9.0	%	
150°C, 168 hr	-10	%	
100% Strain, 150°C, 168 hr	7.0	%	
Change in Tensile Strength in Air - Across Flow			ISO 188
135°C, 1000 hr	-4.0	%	
100% Strain 135°C, 1000 hr	9.0	%	
150°C, 168 hr	-10	%	
100% Strain 150°C, 168 hr	7.0	%	
Change in Ultimate Elongation in Air - Across Flow			ASTM D573
135°C, 1000 hr	-14	%	
150°C, 168 hr	-18	%	
Change in Tensile Strain at Break in Air - Across Flow			ISO 188
135°C, 1000 hr	-14	%	
150°C, 168 hr	-18	%	
Change in Durometer Hardness in Air			ASTM D573
Shore A, 135°C, 1000 hr	1.0		
Shore A, 150°C, 168 hr	3.0		
Change in Shore Hardness in Air			ISO 188
Shore A, 135°C, 1000 hr	1.0		
Shore A, 150°C, 168 hr	3.0		
Change in Volume (125°C, 70 hr, in IRM 903 Oil)	65	%	ASTM D471
Change in Volume (125°C, 70 hr, in IRM 903 Oil)	65	%	ISO 1817

Additional Information	Nominal Value	Unit	Test Method
Apparent Shear Viscosity - Capillary @ 206/s			
200°C	190	Pa·s	ASTM D3835
200°C	190	Pa·s	ISO 11443

Revision Date: 9/29/2023

Sarlink® TPV 4785B40

Teknor Apex Company - Thermoplastic Vulcanizate

Legal Statement

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 66	°C
Back Pressure	0.0689 to 1.03	MPa
Screw Speed	100 to 200	rpm
Screw L/D Ratio	20.0:1.0	

Notes

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

[2] Method Ba, Angle (Unnicked)

Teknor Apex Company
Corporate Headquarters

In U.S. for Vinyls, TPEs, Colorants,

Engineered Thermoplastics (Chem Polymer)
505 Central Avenue
Pawtucket, Rhode Island 02861 U.S.

Phone: 401-725-8000
Fax: 401-725-8095
Toll Free (U.S. only) 800-556-3864

www.teknorapex.com
info@teknorapex.com

Teknor Apex B.V.

Brightlands Chemelot Campus Umonderbaan 22
6167 RD Geleen, Netherlands

Phone: +31 46 7020 950
Fax: +31 46 7020 990

www.teknorapex.com
tpe@teknorapex.com

Teknor Apex (Suzhou) Advanced Polymer Compounds Co. Pte. Ltd.

No. 78 Ping Sheng Road

Suzhou Industrial Park
Jiangsu, China 215126

Phone: (86) 512-6287-1550
Fax: (86) 512-6288-8371

www.teknorapex.com
infotaap@teknoapex.com

Teknor Apex Asia Pacific PTE. LTD.

41 Shipyard Road

Singapore 628134

Phone: (65) 6265-2544
Fax: (65) 6265-1821

www.teknorapex.com
infotaap@teknorapex.com

Revision Date: 9/29/2023