



Sarlink® TPV X17180B (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Vulcanizate

General Information

Product Description

The Sarlink TPV X17100B Series are super 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 X17180B is a medium hardness, low density, high performance thermoplastic vulcanizate available in Black.

General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Chemical Resistant • Good Adhesion • Good Flexibility • Good Moldability • Good Surface Finish	• High Elasticity • High Flow • High Heat Resistance • Low Compression Set • Low Density	• Low Specific Gravity • Medium Hardness • UV Resistant
Uses	• Automotive Applications • Automotive Exterior Parts	• Automotive Window Encapsulation • Rubber Replacement	
RoHS Compliance	• RoHS Compliant		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.915		ISO 1183
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ISO 37
Across Flow : 100% Strain	454	psi	
Flow : 100% Strain	508	psi	
Tensile Strength			ISO 37
Across Flow : Break	783	psi	
Flow : Break	798	psi	
Tensile Elongation			ISO 37
Across Flow : Break	460	%	
Flow : Break	400	%	
Tear Strength ²			ISO 34-1
Across Flow	160	lbf/in	
Flow	150	lbf/in	
Compression Set			ISO 815
73°F, 22 hr	31	%	
158°F, 22 hr	43	%	
257°F, 70 hr	64	%	
Hardness	Nominal Value	Unit	Test Method
Shore Hardness			ISO 868
Shore A, 5 sec	82		
Shore A, 15 sec	80		

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Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air - Across Flow (302°F, 168 hr)	-14	%	ISO 37
Change in Tensile Modulus in Air - Across Flow (302°F, 168 hr)	4.3	%	ISO 37
Change in Ultimate Elongation in Air - Across Flow (302°F, 168 hr)	-27	%	ISO 37
Change in Shore Hardness in Air			ISO 868
Shore A, 302°F, 168 hr ³	2.4		
Shore A, 302°F, 168 hr ⁴	1.8		
Additional Information	Nominal Value	Unit	Test Method
Apparent Shear Viscosity - Capillary, 206 1/s (392°F)	188	Pa·s	ASTM D3835

Processing Information			
Injection	Nominal Value	Unit	
Drying Temperature	180	°F	
Drying Time	3.0	hr	
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)

³ 15 sec delay

⁴ 5 sec delay