



Sarlink® TPV 6180N

Teknor Apex Company - Thermoplastic Vulcanizate

General Information

Product Description

Sarlink® TPV 6100 series are engineered materials designed for consumer, automotive, and industrial applications requiring superior colorability and elastic performance. Sarlink® TPV 6180N is a medium hardness, low density, multi-purpose thermoplastic vulcanizate that does not require pre-drying and can be processed by injection molding.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Chemical Resistant • Good Adhesion • Good Colorability • Good Flexibility	• Good Flow • Good Processability • Low Density • Low Specific Gravity	• Medium Hardness • Resilient
Uses	• Automotive Applications • Automotive Interior Parts	• Consumer Applications • Industrial Applications	• Rubber Replacement • Soft Touch Applications
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color	• Opaque	
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	0.937	g/cm ³	ISO 1183
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
Across Flow : 100% Strain	609	psi	
Flow : 100% Strain	870	psi	
Tensile Stress			ISO 37
Across Flow : 100% Strain	609	psi	
Flow : 100% Strain	870	psi	
Tensile Strength			ASTM D412
Across Flow : Break	1160	psi	
Flow : Break	1060	psi	
Tensile Stress			ISO 37
Across Flow : Break	1160	psi	
Flow : Break	1060	psi	
Tensile Elongation			ASTM D412
Across Flow : Break	650	%	
Flow : Break	390	%	
Tensile Elongation			ISO 37
Across Flow : Break	650	%	
Flow : Break	390	%	
Tear Strength - Across Flow	260	lbf/in	ASTM D624
Tear Strength ²	260	lbf/in	ISO 34-1

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Elastomers	Nominal Value	Unit	Test Method
Compression Set			ASTM D395
73°F, 22 hr	39	%	
158°F, 22 hr	54	%	
257°F, 70 hr	81	%	
Compression Set			ISO 815
73°F, 22 hr	39	%	
158°F, 22 hr	54	%	
257°F, 70 hr	81	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, Extruded	85		
Shore A, 5 sec, Extruded	80		
Shore A, Injection Molded	88		
Shore A, 5 sec, Injection Molded	84		
Shore Hardness			ISO 868
Shore A, Extruded	85		
Shore A, 5 sec, Extruded	80		
Shore A, Injection Molded	88		
Shore A, 5 sec, Injection Molded	84		
Additional Information	Nominal Value	Unit	Test Method
Apparent Shear Viscosity - Capillary @ 206/s			
392°F	212	Pa·s	ASTM D3835
392°F	212	Pa·s	ISO 11443

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	

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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
Melt Temperature	380 to 420	°F
Die Temperature	380 to 420	°F
Take-Off Roll	70 to 120	°F

Notes

- ¹ Typical properties: these are not to be construed as specifications.
- ² Method Ba, Angle (Unnicked)