



Sarlink® TPV 5165N

Teknor Apex Company - Thermoplastic Vulcanizate

General Information

Product Description

Sarlink TPV 5165N is a general purpose thermoplastic vulcanizate used in automotive and industrial applications. Sarlink TPV 5165N is a low hardness, medium density grade exhibiting superior compression set and chemical resistance. This grade can be processed by injection molding, extrusion, and profile extrusion.

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific • Europe	• Latin America • North America	
Additive	• UV Stabilizer		
Features	• General Purpose	• Low Hardness	• Medium Density
Uses	• Blending • Flexible Grips	• Gaskets • General Purpose	• Profiles • Seals
RoHS Compliance	• RoHS Compliant		
Appearance	• Opaque		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	• Profile Extrusion

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.950		ASTM D792
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress - Across Flow (100% Strain)	377	psi	ASTM D412
Tensile Strength - Across Flow (Yield)	945	psi	ASTM D412
Tensile Elongation - Across Flow (Break)	650	%	ASTM D412
Tear Strength - Across Flow ²	200	lbf/in	ASTM D624
Compression Set			ASTM D395B
158°F, 22 hr	29	%	
212°F, 22 hr	40	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 5 sec, Extruded	64		
Shore A, 5 sec, Injection Molded	67		
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air - Across Flow			ASTM D573
302°F, 168 hr	-7.3	%	
100% Strain, 302°F, 168 hr	3.0	%	
Change in Ultimate Elongation in Air - Across Flow (302°F, 168 hr)	-12	%	ASTM D573
Change in Durometer Hardness in Air (302°F, 168 hr)	1.0		ASTM D573
Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity (392°F, 206 sec ⁻¹)	350	Pa·s	ASTM D3835

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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	
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
Extrusion Notes		
Screen Pack: 20 to 60 mesh		
Screw: 3:1 Compression Ratio		

Notes

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

² Die C