



Sarlink® TPV 4145B-W1 BLACK (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Vulcanizate

General Information

Product Description

SARLINK® TPV 4145B-W1 Black series are engineered materials designed primarily for demanding automotive and industrial applications. Available in both black and natural. SARLINK® TPV 4145B-W1 BLACK is a low density, medium hardness thermoplastic vulcanizate that exhibits excellent compression set, flex fatigue, high and low temperature performance and very good chemical resistance including copper contact. This grade can be processed by injection molding, extrusion, and profile extrusion.

General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Chemical Resistant • Copper Contact Stabilized • Filled • Good Melt Strength	• Good Processability • High Heat Resistance • Low Compression Set • Low Density	• Low Specific Gravity • Medium Hardness • Resilient
Uses	• Appliance Components • Automotive Applications • Bushings • Consumer Applications • Diaphragms	• Gaskets • Industrial Applications • O-rings • Plugs • Profiles	• Rubber Replacement • Seals • White Goods & Small Appliances
Agency Ratings	• UL 94		
RoHS Compliance	• RoHS Compliant		
UL File Number	• QMFZ2.E54709		
Appearance	• Black	• Opaque	
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	• Profile Extrusion

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	0.960	g/cm ³	ISO 1183
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress - Across Flow (100% Strain)	203	psi	ISO 37
Tensile Stress - Across Flow (Break)	595	psi	ISO 37
Tensile Elongation - Across Flow (Break)	500	%	ISO 37
Tear Strength - Across Flow ²	114	lbf/in	ISO 34-1
Compression Set			ISO 815
73°F, 22 hr	14	%	
158°F, 22 hr	27	%	
Hardness	Nominal Value	Unit	Test Method
Shore Hardness			ISO 868
Shore A, 5 sec, Extruded	45		
Shore A, 5 sec, Injection Molded	48		
Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity (392°F, 206 sec ⁻¹)	323	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 Method Ba, Angle (Unnicked)