



Sarlink® TPV 4155B03 BLACK (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Vulcanizate

General Information

Product Description

Sarlink® TPV 4155B03 BLACK is an engineered thermoplastic vulcanizate material designed primarily for demanding industrial applications, including pipe seals. Sarlink® TPV 4155B03 BLACK is a medium hardness, low density grade that exhibits excellent compression set, flex fatigue resistance, and medium heat resistance performance. The material can be processed by injection molding, blow molding and extrusion for applications such as seals, gaskets, chemical resistant hose and tube, boots and bellows as well as other profiles. Sarlink TPV 4155B03 BLACK complies with ASTM F477 standard.

General

Material Status	• Preliminary Data		
Availability	• Asia Pacific • Europe	• Latin America • North America	
Features	• Excellent Elastic Recovery • Fatigue Resistant • Good Compression Set	• Low Density • Low Specific Gravity • Medium Hardness	• Medium Heat Resistance
Uses	• Automotive Applications • Blow Molding Applications • Gaskets	• Hose • Industrial Applications • Pipe Seals	• Profiles • Seals • Tubing
Agency Ratings	• ASTM F477		
RoHS Compliance	• RoHS Compliant		
Appearance	• Black	• Opaque	
Forms	• Pellets		
Processing Method	• Blow Molding	• Extrusion	• Injection Molding

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.952		ASTM D792
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
Across Flow : 100% Strain	226	psi	
Flow : 100% Strain	260	psi	
Tensile Stress			ASTM D412
Across Flow : Break	783	psi	
Flow : Break	885	psi	
Tensile Elongation			ASTM D412
Across Flow : Break	540	%	
Flow : Break	480	%	
Compression Set (158°F, 22 hr)	20	%	ASTM D395
Hardness	Nominal Value	Unit	Test Method
Shore Hardness			ASTM D2240
Shore A, 5 sec, Extruded	53		
Shore A, 5 sec, Injection Molded	57		
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air - Flow (158°F, 96 hr)	-5.9	%	ASTM D570
Change in Shore Hardness in Air			ASTM D570
Shore A, 158°F, 96 hr	0.65		
Change in Volume			ASTM D471
158°F, 48 hr, in Water	1.2	%	
212°F, 70 hr, in IRM 903 Oil	78	%	

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Additional Information	Nominal Value	Unit	Test Method
Apparent Shear Viscosity - Capillary, 206 1/s (392°F)	306	Pa·s	ASTM D3835

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	180	°F
Drying Time	3.0	hr
Rear Temperature	356 to 419	°F
Middle Temperature	356 to 419	°F
Front Temperature	356 to 419	°F
Nozzle Temperature	369 to 428	°F
Processing (Melt) Temp	365 to 428	°F
Mold Temperature	50 to 131	°F
Back Pressure	14.5 to 145	psi
Screw Speed	100 to 200	rpm
Extrusion	Nominal Value	Unit
Drying Temperature	180	°F
Drying Time	3.0	hr
Cylinder Zone 1 Temp.	356 to 392	°F
Cylinder Zone 2 Temp.	356 to 401	°F
Cylinder Zone 3 Temp.	369 to 410	°F
Cylinder Zone 4 Temp.	369 to 410	°F
Melt Temperature	383 to 419	°F
Die Temperature	383 to 419	°F
Take-Off Roll	68 to 122	°F

Extrusion Notes

Screen Pack: 20 to 60 mesh
Screw: general purpose
Compression Ratio: 3:1

Notes

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