



Sarlink® TPV 10045B BLACK (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Vulcanizate

General Information

Product Description

Sarlink TPV 10045B BLACK is a high performance thermoplastic vulcanizate used in automotive applications. Sarlink TPV 10045B BLACK is a medium hardness, low density, lubricated, UV resistant grade exhibiting superior compression set and chemical resistance. This grade is designed for injection molding.

General

Material Status	• Preliminary Data		
Availability	• Asia Pacific • Europe	• Latin America • North America	
Features	• Chemical Resistant • High Heat Resistance • Low Compression Set	• Low Density • Low Specific Gravity • Lubricated	• Medium Hardness • UV Resistant
Uses	• Automotive Applications	• Automotive Exterior Parts	• Rubber Replacement
RoHS Compliance	• RoHS Compliant		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	0.920	g/cm ³	ISO 1183
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ISO 37
Across Flow : 100% Strain	290	psi	
Flow : 100% Strain	174	psi	
Tensile Stress			ISO 37
Across Flow : Break	421	psi	
Flow : Break	464	psi	
Tensile Elongation			ISO 37
Across Flow : Break	280	%	
Flow : Break	450	%	
Tear Strength - Across Flow ²	81.0	lbf/in	ISO 34-1
Compression Set			ISO 815
73°F, 22 hr	17	%	
158°F, 22 hr	24	%	
257°F, 70 hr	46	%	
Hardness	Nominal Value	Unit	Test Method
Shore Hardness			ISO 868
Shore A, 5 sec, Extruded	45		
Shore A, 5 sec, Injection Molded	48		

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Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air - Across Flow			ISO 188
275°F, 1008 hr	-10	%	
100% Strain 275°F, 1008 hr	2.0	%	
302°F, 168 hr	-15	%	
100% Strain 302°F, 168 hr	-5.0	%	
Change in Tensile Strain at Break in Air - Across Flow			ISO 188
275°F, 1008 hr	-1.0	%	
302°F, 168 hr	-10	%	
Change in Shore Hardness in Air			ISO 188
Shore A, 275°F, 1008 hr	2.0		
Shore A, 302°F, 168 hr	0.0		
Change in Volume (257°F, 70 hr, in IRM 903 Oil)	78	%	ISO 1817
Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity (392°F, 206 sec ⁻¹)	125	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)