

Sarlink® TPV 3140

Thermoplastic Vulcanizate

Teknor Apex Company

Message:

A low hardness, multi-purpose thermoplastic elastomer featuring excellent compression set and high temperature performance. Sarlink® 3140 can be processed by injection molding or extrusion for applications such as grips, seals, gaskets, profiles and other articles.

General Information	
UL YellowCard	E54709-101009567
Features	Heat resistance, medium
	Hardness, low
Uses	Washer
	Diaphragm
	Seals
	Profile
Appearance	Opacity
Forms	Particle
Processing Method	Extrusion
	Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	0.928	g/cm ³	ASTM D792
--	0.930	g/cm ³	ISO 1183
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240, ISO 868
Shaw A, 5 seconds, extruded	41		ASTM D2240, ISO 868
Shore A, 5 seconds, injection molding	46		ASTM D2240, ISO 868
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412, ISO 37
Transverse flow: 100% strain	1.20	MPa	ASTM D412, ISO 37
Flow: 100% strain	2.50	MPa	ASTM D412, ISO 37
Tensile Strength			ASTM D412, ISO 37
Transverse flow: Fracture	4.40	MPa	ASTM D412, ISO 37
Flow: Fracture	2.50	MPa	ASTM D412, ISO 37
Tensile Elongation			ASTM D412, ISO 37
Transverse flow: Fracture	600	%	ASTM D412, ISO 37
Flow: Fracture	210	%	ASTM D412, ISO 37

Tear Strength - Across Flow			
--	15.9	kN/m	ASTM D624
-- 1	16	kN/m	ISO 34-1
Compression Set			ASTM D395, ISO 815
23°C, 22 hr	18	%	ASTM D395, ISO 815
70°C, 22 hr	31	%	ASTM D395, ISO 815
125°C, 70 hr	52	%	ASTM D395, ISO 815
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air - Across Flow			
135°C, 1000 hr	12	%	ASTM D573, ISO 188
100% strain, 135°C, 1000 hr	5.0	%	ASTM D573
150°C, 168 hr	11	%	ASTM D573, ISO 188
100% strain, 150°C, 168 hr	6.0	%	ASTM D573
100% strain 135°C, 1000 hr	5.0	%	ISO 188
100% strain 150°C, 168 hr	6.0	%	ISO 188
Change in Ultimate Elongation in Air - Across Flow			
135°C, 1000 hr	12	%	ASTM D573, ISO 188
150°C, 168 hr	-7.0	%	ASTM D573
150°C, 168 hr	7.0	%	ISO 188
Change in Durometer Hardness in Air			ASTM D573, ISO 188
Support a, 135°C, 1000 hr	-1.0		ASTM D573, ISO 188
Support a, 150°C, 168 hr	1.0		ASTM D573, ISO 188
Change in Volume			
125°C, 70 hr, in IRM 903 oil	140	%	ASTM D471
125°C, 70 hr, in IRM 903 oil	140	%	ISO 1817
Thermal	Nominal Value	Unit	Test Method
RTI Elec	50.0	°C	UL 746
RTI Imp	50.0	°C	UL 746
RTI	50.0	°C	UL 746
Flammability	Nominal Value		Test Method
Flame Rating (1.50 mm, Natural and Black Colors)	HB		UL 94
Additional Information	Nominal Value	Unit	Test Method
Apparent Shear Viscosity - Capillary, @ 206/s			
200°C	270	Pa · s	ISO 11443
200°C	270	Pa · s	ASTM D3835
Injection	Nominal Value	Unit	
Rear Temperature	180 - 215	°C	
Middle Temperature	180 - 215	°C	
Front Temperature	180 - 215	°C	

Nozzle Temperature	187 - 220	°C
Processing (Melt) Temp	185 - 220	°C
Mold Temperature	10.0 - 55.0	°C
Back Pressure	0.100 - 1.00	MPa
Screw Speed	100 - 200	rpm
Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	180 - 200	°C
Cylinder Zone 2 Temp.	180 - 205	°C
Cylinder Zone 3 Temp.	187 - 210	°C
Cylinder Zone 4 Temp.	187 - 210	°C
Melt Temperature	195 - 215	°C
Die Temperature	195 - 215	°C
Take-Off Roll	20.0 - 50.0	°C

Extrusion instructions

Screen Pack: 20 to 60 meshScrew: general purposeCompression Ratio: 3:1

NOTE

- Method B, right-angle specimen
(without cut)

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