Sarlink® TPV 3139DN

Thermoplastic Vulcanizate

Teknor Apex Company

Message:

SARLINK® 3139DN is a high hardness, multi-purpose thermoplastic elastomer featuring excellent resiliency, heat resistance and flex fatigue resistance. SARLINK® 3139DN can be processed by injection molding, extrusion and blow molding to produce clamps, grommets, profiles, boots, ducts and bellows.

General Information	
UL YellowCard	E54709-101009566
Features	Fatigue resistance Heat resistance, medium High hardness Elastic
Uses	Washer Profile
Appearance	Opacity
Forms	Particle
Processing Method	Blow molding Extrusion Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	0.938	g/cm³	ASTM D792
--	0.940	g/cm³	ISO 1183
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240, ISO 868
Shaw D, 5 seconds, extruded	38		ASTM D2240, ISO 868
Shore D, 5 seconds, injection molding	41		ASTM D2240, ISO 868
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress			
Transverse flow: 100% strain	8.89	MPa	ASTM D412
Flow: 100% strain	13.3	MPa	ASTM D412, ISO 37
Transverse flow: 100% strain	8.90	MPa	ISO 37
Tensile Strength			ASTM D412, ISO 37
Transverse flow: Fracture	18.5	MPa	ASTM D412, ISO 37
Flow: Fracture	17.4	MPa	ASTM D412, ISO 37
Tensile Elongation			ASTM D412, ISO 37

Transverse flow: Fracture	700	%	ASTM D412, ISO 37
Flow: Fracture	400	%	ASTM D412, ISO 37
Tear Strength - Across Flow			
--	102	kN/m	ASTM D624
-- [1]	100	kN/m	ISO 34-1
Compression Set			ASTM D395, ISO 815
23°C, 22 hr	53	%	ASTM D395, ISO 815
70°C, 22 hr	67	%	ASTM D395, ISO 815
125°C, 70 hr	85	%	ASTM D395, ISO 815
Aging	**Nominal Value**	**Unit**	**Test Method**
Change in Tensile Strength in Air - Across Flow			
135°C, 1000 hr	-5.0	%	ASTM D573, ISO 188
100% strain, 135°C, 1000 hr	9.0	%	ASTM D573
150°C, 168 hr	-7.0	%	ASTM D573, ISO 188
100% strain, 150°C, 168 hr	11	%	ASTM D573
100% strain 135°C, 1000 hr	9.0	%	ISO 188
100% strain 150°C, 168 hr	11	%	ISO 188
Change in Ultimate Elongation in Air - Across Flow			
135°C, 1000 hr	90	%	ASTM D573
150°C, 168 hr	89	%	ASTM D573
135°C, 1000 hr	-10	%	ISO 188
150°C, 168 hr	-11	%	ISO 188
Change in Durometer Hardness in Air			ASTM D573, ISO 188
Support d, 135°C, 1000 hr	0.0		ASTM D573, ISO 188
Support d, 150°C, 168 hr	1.0		ASTM D573, ISO 188
Change in Volume			
125°C, 70 hr, in IRM 903 oil	55	%	ASTM D471
125°C, 70 hr, in IRM 903 oil	55	%	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, All Colors)	HB		UL 94
Additional Information	**Nominal Value**	**Unit**	**Test Method**
Apparent Shear Viscosity - Capillary, @ 206/s			
200°C	310	Pa·s	ISO 11443
200°C	310	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	
1.	Method B, right-angle specimen (without cut)

Recommended distributors for this material

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