Sarlink® TPV 4155N

Thermoplastic Vulcanizate

Teknor Apex Company

Message:

A highly engineered Thermoplastic Elastomer for use in demanding applications. Sarlink® 4155N is a low hardness grade possessing exceptional tensile strength, superior compression set, chemical resistance and high temperature performance. It can be easily processed by injection molding, blow molding or extrusion for various applications such as boots and bellows, seals, gaskets as well as other profiles and articles.

General Information	
Features	Fatigue resistance Heat resistance, medium
Uses	Washer Pipe Pipe fittings Seals Application in Automobile Field
RoHS Compliance	RoHS compliance
Appearance	Opacity Black Natural color
Forms	Particle
Processing Method	Blow molding Extrusion Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	0.958	g/cm³	ASTM D792
--	0.960	g/cm³	ISO 1183
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240, ISO 868
Shaw A, 5 seconds, extruded	53		ASTM D2240, ISO 868
Shore A, 5 seconds, injection molding	56		ASTM D2240, ISO 868
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress			
Transverse flow: 100% strain	2.00	MPa	ASTM D412, ISO 37
Flow: 100% strain	3.10	MPa	ISO 37, ASTM D412
Tensile Stress			

Transverse flow: Fracture	5.20	MPa	ASTM D412, ISO 37
Flow: Fracture	4.30	MPa	ISO 37, ASTM D412
Tensile Elongation			
Transverse flow: Fracture	550	%	ASTM D412, ISO 37
Flow: Fracture	240	%	ISO 37, ASTM D412
Tear Strength - Across Flow			
--	22	kN/m	ASTM D624
-- [1]	22	kN/m	ISO 34-1
Compression Set			ASTM D395, ISO 815
23°C, 22 hr	14	%	ASTM D395, ISO 815
70°C, 22 hr	26	%	ASTM D395, ISO 815
125°C, 70 hr	37	%	ASTM D395, ISO 815
Aging	**Nominal Value**	**Unit**	**Test Method**
Change in Tensile Strength in Air - Across Flow			ASTM D573, ISO 188
135°C, 1000 hr	-5.0	%	ASTM D573, ISO 188
100% strain 135°C, 1000 hr	2.0	%	ASTM D573, ISO 188
150°C, 168 hr	-9.0	%	ASTM D573, ISO 188
100% strain 150°C, 168 hr	-2.0	%	ASTM D573, ISO 188
Changes in tensile stress upon fracture in air-Transverse flow			
135°C, 1000 hr	1.0	%	ASTM D573, ISO 188
150°C, 168 hr	-6.0	%	ISO 188, ASTM D573
Change in Shore Hardness in Air			ASTM D573, ISO 188
Support a, 135°C, 1000 hr	2.0		ASTM D573, ISO 188
Support a, 150°C, 168 hr	2.0		ASTM D573, ISO 188
Change in Volume (125°C, 70 hr, in IRM 903 Oil)	85	%	ASTM D471, ISO 1817
Additional Information	**Nominal Value**	**Unit**	**Test Method**
Apparent Shear Viscosity - Capillary, @ 206/s			
200°C	320	Pa·s	ASTM D3835
200°C	320	Pa·s	ISO 11443
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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