



Sarlink® TPV 3480N

Teknor Apex Company - Thermoplastic Vulcanizate

General Information

Product Description

Sarlink TPV 3480N is a high performance thermoplastic vulcanizate used in automotive and industrial applications. Sarlink TPV 3480N is a medium hardness, low density, RoHS compliant, ANSI STD 61 certified grade suitable for injection molding, blow molding, extrusion, and pipe extrusion. This grade is also available in Black.

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific • Europe	• Latin America • North America	
Features	• Chemical Resistant • General Purpose • Good Adhesion	• High Heat Resistance • Low Density • Low Specific Gravity	• Medium Hardness
Uses	• Fittings • General Purpose	• Piping • Potable Water Applications	
Agency Ratings	• NSF/ANSI/CAN 61 ¹		
RoHS Compliance	• RoHS Compliant		
Appearance	• Black	• Opaque	
Forms	• Pellets		
Processing Method	• Blow Molding • Extrusion	• Injection Molding • Pipe Extrusion	

ASTM & ISO Properties ²

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.948	g/cm ³	ASTM D792
Density	0.950	g/cm ³	ISO 1183
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
Across Flow : 100% Strain	4.50	MPa	
Flow : 100% Strain	5.10	MPa	
Tensile Stress			ISO 37
Across Flow : 100% Strain	4.50	MPa	
Flow : 100% Strain	5.10	MPa	
Tensile Strength			ASTM D412
Across Flow : Yield	9.30	MPa	
Flow : Yield	7.10	MPa	
Tensile Stress			ISO 37
Across Flow : Break	9.31	MPa	
Flow : Break	7.10	MPa	
Tensile Elongation			ASTM D412
Across Flow : Break	680	%	
Flow : Break	430	%	
Tensile Elongation			ISO 37
Across Flow : Break	680	%	
Flow : Break	430	%	
Tear Strength - Across Flow ³	51.0	kN/m	ASTM D624
Tear Strength - Across Flow	51.0	kN/m	ISO 34-1

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Elastomers	Nominal Value	Unit	Test Method
Compression Set			ASTM D395B
23°C, 22 hr	32	%	
70°C, 22 hr	46	%	
100°C, 22 hr	52	%	
Compression Set			ISO 815
23°C, 22 hr	32	%	
70°C, 22 hr	46	%	
125°C, 70 hr	52	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 5 sec, Extruded	80		
Shore A, 5 sec, Injection Molded	84		
Shore Hardness			ISO 868
Shore A, 5 sec, Extruded	80		
Shore A, 5 sec, Injection Molded	84		
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air - Across Flow			ASTM D573
135°C, 1000 hr	-9.0	%	
100% Strain, 135°C, 1000 hr	17	%	
150°C, 168 hr	-8.0	%	
100% Strain, 150°C, 168 hr	9.0	%	
Change in Tensile Strength in Air - Across Flow			ISO 188
135°C, 1000 hr	-9.0	%	
100% Strain 135°C, 1000 hr	17	%	
150°C, 168 hr	-8.0	%	
100% Strain 150°C, 168 hr	9.0	%	
Change in Ultimate Elongation in Air - Across Flow			ASTM D573
135°C, 1000 hr	-15	%	
150°C, 168 hr	-16	%	
Change in Tensile Strain at Break in Air			ISO 188
135°C, 1000 hr	-15	%	
150°C, 168 hr	-16	%	
Change in Durometer Hardness in Air			ASTM D573
Shore A, 135°C, 1000 hr	0.0		
Shore A, 150°C, 168 hr	2.0		
Change in Shore Hardness in Air			ISO 188
Shore A, 135°C, 1000 hr	0.0		
Shore A, 150°C, 168 hr	2.0		
Change in Volume (125°C, 70 hr, in IRM 903 Oil)	95	%	ASTM D471
Change in Volume (125°C, 70 hr, in IRM 903 Oil)	95	%	ISO 1817
Additional Information	Nominal Value	Unit	Test Method
Apparent Shear Viscosity - Capillary, @ 206/s			
200°C	290	Pa·s	ASTM D3835
200°C	290	Pa·s	ISO 11443

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Processing Information		
Injection	Nominal Value	Unit
Drying Temperature	82	°C
Drying Time	3.0	hr
Rear Temperature	177 to 216	°C
Middle Temperature	177 to 216	°C
Front Temperature	177 to 216	°C
Nozzle Temperature	188 to 221	°C
Processing (Melt) Temp	182 to 221	°C
Mold Temperature	10 to 66	°C
Back Pressure	0.0689 to 1.03	MPa
Screw Speed	100 to 200	rpm
Screw L/D Ratio	20.0:1.0	
Extrusion	Nominal Value	Unit
Drying Temperature	82	°C
Drying Time	3.0	hr
Cylinder Zone 1 Temp.	182 to 204	°C
Cylinder Zone 2 Temp.	182 to 204	°C
Cylinder Zone 3 Temp.	188 to 210	°C
Cylinder Zone 4 Temp.	188 to 210	°C
Melt Temperature	193 to 216	°C
Die Temperature	193 to 216	°C
Take-Off Roll	21 to 49	°C
Extrusion Notes		
Screen Pack: 20 to 60 mesh		
Screw: 3:1 Compression Ratio		

Notes

¹ IAPMO R&T Certification

² Typical properties: these are not to be construed as specifications.

³ Die C