

Sarlink® TPV 3170

Thermoplastic Vulcanizate

Teknor Apex Company

PROSPECTOR®

www.ulprospector.com

Technical Data

Product Description

SARLINK® 3170 is a medium hardness, multi-purpose thermoplastic vulcanizate featuring excellent compression set with good heat resistance and weatherability. SARLINK® 3170 is offered in Nat and Black and can be processed by injection molding, blow molding or extrusion for a variety of industry applications such as seals, gaskets, chemical resistant hose and tube, heat resistant boots and bellows.

General

Material Status	• Commercial: Active
Literature ¹	• Technical Datasheet
UL Yellow Card ²	• E54709-101009571
Search for UL Yellow Card	• Teknor Apex Company • Sarlink® TPV
Availability	• Asia Pacific • Europe • Latin America • North America
Features	• Bondability • General Purpose • Good Adhesion • Good Adhesion • Good Chemical Resistance • Good Flexibility • Good Moldability • Good Processability • Good Surface Finish • Good Weather Resistance • High Elasticity • Low Density • Medium Hardness • Medium Heat Resistance • Resilient
Uses	• Appliance Components • Automotive Applications • Automotive Exterior Parts • Automotive Interior Parts • Automotive Under the Hood • Blow Molding Applications • Gaskets • General Purpose • Handles • Hose • Industrial Applications • O-rings • Pipe Seals • Profiles • Rubber Replacement • Seals • Tubing
Appearance	• Black • Natural Color • Opaque
Forms	• Pellets
Processing Method	• Blow Molding • Extrusion • Injection Molding

Physical	Nominal Value Unit	Test Method
Specific Gravity		
--	0.948 g/cm ³	ASTM D792
--	0.950 g/cm ³	ISO 1183

Elastomers	Nominal Value Unit	Test Method
Tensile Stress		ASTM D412 ISO 37
Across Flow : 100% Strain	3.30 MPa	
Flow : 100% Strain	5.10 MPa	
Tensile Strength		ASTM D412 ISO 37
Across Flow : Break	7.72 MPa	
Flow : Break	6.70 MPa	
Across Flow : Break	7.70 MPa	
Tensile Elongation		ASTM D412 ISO 37
Across Flow : Break	670 %	
Flow : Break	300 %	
Tear Strength - Across Flow		ASTM D624 ISO 34-1
--	42.0 kN/m	
-- ⁴	42 kN/m	
Compression Set		ASTM D395 ISO 815
23°C, 22 hr	25 %	
70°C, 22 hr	43 %	
125°C, 70 hr	63 %	



Hardness	Nominal Value Unit	Test Method
Durometer Hardness		ASTM D2240 ISO 868
Shore A, 5 sec, Extruded	71	
Shore A, 5 sec, Injection Molded	75	
Thermal	Nominal Value Unit	Test Method
RTI Elec	50.0 °C	UL 746
RTI Imp	50.0 °C	UL 746
RTI Str	50.0 °C	UL 746
Aging	Nominal Value Unit	Test Method
Change in Tensile Strength in Air - Across Flow		
135°C, 1000 hr	-8.0 %	ASTM D573 ISO 188
100% Strain, 135°C, 1000 hr	10 %	ASTM D573
150°C, 168 hr	-4.0 %	ASTM D573 ISO 188
100% Strain, 150°C, 168 hr	5.0 %	ASTM D573
100% Strain 135°C, 1000 hr	10 %	ISO 188
100% Strain 150°C, 168 hr	5.0 %	ISO 188
Change in Ultimate Elongation in Air - Across Flow		ASTM D573 ISO 188
135°C, 1000 hr	-13 %	
150°C, 168 hr	-14 %	
Change in Durometer Hardness in Air		ASTM D573 ISO 188
Shore A, 135°C, 1000 hr	-1.0	
Shore A, 150°C, 168 hr	3.0	
Change in Volume		ASTM D471 ISO 1817
125°C, 70 hr, in IRM 903 Oil	120 %	
Flammability	Nominal Value Unit	Test Method
Flame Rating		UL 94
1.50 mm, Natural and Black Colors	HB	
Additional Information	Nominal Value Unit	Test Method
Apparent Shear Viscosity - Capillary, @ 206/s		
200°C	290 Pa·s	ISO 11443
200°C	290 Pa·s	ASTM D3835

Legal Statement

The information and recommendations contained in this bulletin are, to the best of our knowledge, accurate and reliable but no guarantee of their accuracy is made. All products are sold upon condition that purchasers shall make their own tests to determine the suitability of such products for their particular purposes and uses and purchaser assumes all risks and liability for the results of use of the products, including use in accordance with seller's recommendations. Nothing in this bulletin constitutes permission or a recommendation to practice or use any invention covered by any patent owned by this company or others. There is no warranty of merchantability and there are no other warranties for the products described. For detailed Product Stewardship information, please contact us. Any product of Teknor Apex, including product names, shall not be used or tested in medical or food contact applications without the prior written acknowledgement of Teknor Apex as to the intended use. Please note that some products may not be available in one or more countries.

Injection	Nominal Value Unit
Drying Temperature	82.2 °C
Drying Time	3.0 hr
Rear Temperature	180 to 215 °C
Middle Temperature	180 to 215 °C
Front Temperature	180 to 215 °C
Nozzle Temperature	187 to 220 °C
Processing (Melt) Temp	185 to 220 °C
Mold Temperature	10.0 to 55.0 °C
Back Pressure	0.100 to 1.00 MPa
Screw Speed	100 to 200 rpm

Extrusion	Nominal Value Unit
Drying Temperature	82.2 °C
Drying Time	3.0 hr



Extrusion	Nominal Value Unit
Cylinder Zone 1 Temp.	180 to 200 °C
Cylinder Zone 2 Temp.	180 to 205 °C
Cylinder Zone 3 Temp.	187 to 210 °C
Cylinder Zone 4 Temp.	187 to 210 °C
Melt Temperature	195 to 215 °C
Die Temperature	195 to 215 °C
Take-Off Roll	20.0 to 50.0 °C

Extrusion Notes

Screen Pack: 20 to 60 mesh
Screw: general purpose
Compression Ratio: 3:1

Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

³ Typical properties: these are not to be construed as specifications.

⁴ Method Ba, Angle (Unnicked)



Where to Buy

Supplier

Teknor Apex Company
Pawtucket, RI USA
Telephone: 800-556-3864
Web: <http://www.teknorapex.com/>

Distributor

Chase Plastic Services, Inc.

Chase Plastics Services is a North American distributor with representatives throughout the region. Please find your rep here:
<http://www.chaseplastics.com/contact/locations>
Telephone: 800-232-4273
Web: <http://www.chaseplastics.com/>
Availability: North America

Distrupol Ltd

Distrupol Ltd is a Pan European distribution company. Contact Distrupol Ltd for availability of individual products by country.
Telephone: 08452003040
Web: <http://www.distrupol.com/>
Availability: Belgium, Denmark, Finland, Ireland, Luxembourg, Netherlands, Norway, Sweden, United Kingdom

Erteco Rubber & Plastics AB

Telephone: +46 8-587 517 00
Web: <http://www.erteco.se/>
Availability: Denmark, Finland, Norway, Sweden

Nexeo Solutions - Europe

Nexeo Solutions is a Pan European distribution company. Contact Nexeo for availability of individual products by country.
Telephone: +34-93-480-9125
Web: <http://www.nexeosolutions.com/>
Availability: Russian Federation

