Sarlink® TPV X4145B-W1 BLACK (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Vulcanizate

Friday, June 30, 2017

General Information

Product Description

SARLINK® X4145BW1 BLACK is a specially developed engineering material designed primarily for demanding consumer, industrial, and automotive applications. SARLINK® X4145BW1 BLACK is a low density, medium hardness thermoplastic vulcanizate that exhibits excellent compression set, flex fatigue, high and low temperature performance and very good chemical resistance including copper contact. This grade can be processed by injection molding, extrusion, and profile extrusion.

General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Chemical Resistant • Copper Contact Stabilized • Filled • Good Melt Strength	• Good Processability • High Heat Resistance • Low Compression Set • Low Density	• Low Specific Gravity • Medium Hardness • Resilient
Uses	• Appliance Components • Automotive Applications • Bushings • Consumer Applications • Diaphragms	• Gaskets • Industrial Applications • O-rings • Plugs • Profiles	• Rubber Replacement • Seals • White Goods & Small Appliances
RoHS Compliance	• RoHS Compliant		
Appearance	• Black	• Opaque	
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	• Profile Extrusion

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	0.960	g/cm³	ISO 1183
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress - Across Flow (100% Strain)	203	psi	ISO 37
Tensile Stress - Across Flow (Break)	595	psi	ISO 37
Tensile Elongation - Across Flow (Break)	500	%	ISO 37
Tear Strength - Across Flow [2]	110	lbf/in	ISO 34-1
Compression Set			ISO 815
73°F, 22 hr	14	%	
158°F, 22 hr	27	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Shore Hardness			ISO 868
Shore A, 5 sec, Extruded	45		
Shore A, 5 sec, Injection Molded	48		
Fill Analysis	**Nominal Value**	**Unit**	**Test Method**
Apparent Viscosity (392°F, 206 sec^-1)	323	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.

Revision Date: 6/1/2016

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Processing Information

Injection	Nominal Value	Unit
Drying Temperature	180	°F
Drying Time	3.0	hr
Rear Temperature	350 to 420	°F
Middle Temperature	350 to 420	°F
Front Temperature	350 to 420	°F
Nozzle Temperature	370 to 430	°F
Processing (Melt) Temp	360 to 430	°F
Mold Temperature	50 to 150	°F
Back Pressure	10.0 to 150	psi
Screw Speed	100 to 200	rpm
Screw L/D Ratio	20.0:1.0	

Extrusion	Nominal Value	Unit
Drying Temperature	180	°F
Drying Time	3.0	hr
Cylinder Zone 1 Temp.	360 to 400	°F
Cylinder Zone 2 Temp.	360 to 400	°F
Cylinder Zone 3 Temp.	370 to 410	°F
Cylinder Zone 4 Temp.	370 to 410	°F
Melt Temperature	380 to 420	°F
Die Temperature	380 to 420	°F
Take-Off Roll	70 to 120	°F

Extrusion Notes

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

Notes

[1] Typical properties: these are not to be construed as specifications.

[2] Method Ba, Angle (Unnicked)

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