Sarlink® TPE ML-1150B BLK (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

Thursday, June 29, 2017

General Information

Product Description

Sarlink ML-1100 is a general purpose thermoplastic elastomer series, available in NAT and BLK designed for automotive interior applications. Sarlink ML-1150B BLK is a low hardness, high density, filled grade suitable for injection molding.

General			
Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Chemical Resistant • Filled • Good Adhesion • Good Flexibility	• Good Moldability • Good Tear Strength • Good Toughness • High Density	• High Specific Gravity • Low Flow • Low Hardness • Resilient
Uses	• Automotive Applications • Automotive Interior Parts • Flexible Grips	• General Purpose • Grommets • Knobs	• Rubber Replacement • Soft Touch Applications
RoHS Compliance	• RoHS Compliant		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.19	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	6.0	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress [2]			ISO 37
Across Flow : 100% Strain	164	psi	
Flow : 100% Strain	232	psi	
Tensile Stress [2]			ISO 37
Across Flow : Break	711	psi	
Flow : Break	624	psi	
Tensile Elongation [2]			ISO 37
Across Flow : Break	860	%	
Flow : Break	740	%	
Tear Strength [3]			ISO 34-1
Across Flow	110	lbf/in	
Flow	120	lbf/in	
Compression Set [4]			ISO 815
73°F, 22 hr	25	%	
158°F, 22 hr	43	%	
194°F, 70 hr	69	%	
257°F, 70 hr	93	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Shore Hardness			ISO 868
Shore A, 1 sec, Injection Molded	53		
Shore A, 5 sec, Injection Molded	51		
Shore A, 15 sec, Injection Molded	49		

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Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air [5]			ISO 188
Across Flow : 230°F, 1008 hr	8.2	%	
Flow : 230°F, 1008 hr	14	%	
Across Flow : 100% Strain 230°F, 1008 hr	2.7	%	
Flow : 100% Strain 230°F, 1008 hr	3.8	%	
Across Flow : 257°F, 168 hr	12	%	
Flow : 257°F, 168 hr	14	%	
Across Flow : 100% Strain 257°F, 168 hr	-0.88	%	
Flow : 100% Strain 257°F, 168 hr	13	%	
Change in Tensile Strain at Break in Air [5]			ISO 188
Across Flow : 230°F, 1008 hr	8.1	%	
Flow : 230°F, 1008 hr	12	%	
Across Flow : 257°F, 168 hr	15	%	
Flow : 257°F, 168 hr	18	%	
Change in Shore Hardness in Air			ISO 188
Shore A, 230°F, 1008 hr [6]	1.1		
Shore A, 230°F, 1008 hr [7]	1.3		
Shore A, 230°F, 1008 hr [8]	0.0		
Shore A, 257°F, 168 hr [7]	1.5		
Shore A, 257°F, 168 hr [6]	1.2		
Shore A, 257°F, 168 hr [8]	0.80		

Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity (392°F, 206 sec^-1)	127	Pa·s	ASTM D3835

Additional Information	Nominal Value	Unit	Test Method
Xenon Weatherometer			SAE J1885
Delta E - 1250 kJ	0.430		
Delta E - 2500 kJ	0.190		

Legal Statement

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	340 to 380	°F
Middle Temperature	350 to 390	°F
Front Temperature	360 to 400	°F
Nozzle Temperature	370 to 410	°F
Processing (Melt) Temp	370 to 410	°F
Mold Temperature	77 to 150	°F
Injection Pressure	200 to 1000	psi
Injection Rate	Moderate-Fast	
Back Pressure	25.0 to 50.0	psi
Screw Speed	50 to 100	rpm
Cushion	0.150 to 1.00	in

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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 purchasers assume 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 by others. There is no warranty of merchantability and there are no other warranties for the products described.

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Injection Notes

Drying is not necessary. However, if moisture is a problem, dry the pellets for 2 to 4 hours at 150°F (65°C).

Notes

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

[2] Type 1, 20 in/min

[3] Method Ba, Angle (Unnicked), 20 in/min

[4] Type A

[5] Type 1

[6] 5 sec

[7] 15 sec

[8] 1 sec

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