

Shore A, 15 sec, Injection Molded

Sarlink® TPE ML-1660N NAT (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

Friday, June 30, 2017

General Information

Product Description

Sarlink ML-1600 series is a high performance, high flow thermoplastic elastomer series, available in NAT and BLK designed for automotive interior applications. Sarlink ML-1660N NAT is a medium hardness, medium density grade with excellent surface appearance suitable for injection molding.

General			
Material Status	Preliminary Data		
Availability	 Africa & Middle East Asia Pacific	EuropeLatin America	North America
Features	Chemical ResistantFilledGood AdhesionGood Flexibility	Good MoldabilityGood Surface FinishGood Tear StrengthGood Toughness	Medium DensityMedium FlowMedium HardnessResilient
Uses	Automotive ApplicationsAutomotive Interior PartsFlexible Grips	 Grommets Knobs Rubber Replacement	Soft Touch Applications
RoHS Compliance	 RoHS Compliant 		
Appearance	 Natural Color 		
Forms	 Pellets 		
Processing Method	 Injection Molding 		

Density Dens	AST	M & ISO Properties 1		
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) 16 g/10 min ASTM D123 Elastomers Nominal Value Unit Test Method Tensile Stress 2 ISO 37 Across Flow : 100% Strain 325 psi Flow : 100% Strain 325 psi Tensile Stress 2 ISO 37 Across Flow : Break 972 psi Flow : Break 841 psi Tensile Elongation 2 ISO 37 Across Flow : Break 860 % Flow : Break 740 % Tear Strength 3 ISO 34-1 Across Flow 130 lbf/in Flow 140 lbf/in Compression Set 4 22 % 73°F, 22 hr 22 % 158°F, 22 hr 43 %	Physical	Nominal Value	Unit	Test Method
Elastomers Nominal Value Unit Test Method Tensile Stress 2 ISO 37 Across Flow : 100% Strain 325 psi Flow : 100% Strain 325 psi Tensile Stress 2 ISO 37 Across Flow : Break 972 psi Flow : Break 841 psi Tensile Elongation 2 ISO 37 Across Flow : Break 860 % Flow : Break 740 % Tear Strength 3 ISO 34-1 Across Flow 130 lbf/in Flow 140 lbf/in Compression Set 4 22 % 73°F, 22 hr 22 % 150 815 150 815	Density	0.990	g/cm³	ISO 1183
Tensile Stress 2	Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	16	g/10 min	ASTM D1238
Across Flow : 100% Strain Flow : 100% Strain Tensile Stress 2 Across Flow : Break	Elastomers	Nominal Value	Unit	Test Method
Flow: 100% Strain Tensile Stress 2	Tensile Stress ²			ISO 37
Tensile Stress 2	Across Flow: 100% Strain	236	psi	
Across Flow : Break 972 psi Flow : Break 841 psi Tensile Elongation 2 ISO 37 Across Flow : Break 860 % Flow : Break 740 % Tear Strength 3 ISO 34-1 Across Flow 130 lbf/in Flow 140 lbf/in Compression Set 4 73°F, 22 hr 158°F, 22 hr 158°F, 22 hr	Flow: 100% Strain	325	psi	
Flow : Break 841 psi Tensile Elongation 2 ISO 37 Across Flow : Break 860 % Flow : Break 740 % Tear Strength 3 ISO 34-1 Across Flow 130 lbf/in Flow 140 lbf/in Compression Set 4 73°F, 22 hr 158°F, 22 hr 158°F, 22 hr	Tensile Stress ²			ISO 37
Tensile Elongation 2	Across Flow : Break	972	psi	
Across Flow : Break 860 % Flow : Break 740 % Tear Strength 3 ISO 34-1 Across Flow 130 lbf/in Flow 140 lbf/in Compression Set 4 73°F, 22 hr 158°F, 22 hr 158°F, 22 hr	Flow: Break	841	psi	
Flow : Break 740 % Tear Strength 3 ISO 34-1 Across Flow 130 lbf/in Flow 140 lbf/in Compression Set 4 73°F, 22 hr 158°F, 22 hr 158°F, 22 hr	Tensile Elongation ²			ISO 37
Tear Strength ³ Across Flow Flow 130 lbf/in 140 lbf/in Compression Set ⁴ 73°F, 22 hr 158°F, 22 hr 158°F, 22 hr 43 %	Across Flow : Break	860	%	
Across Flow 130 lbf/in Flow 140 lbf/in Compression Set ⁴ ISO 815 73°F, 22 hr 22 % 158°F, 22 hr 43 %	Flow : Break	740	%	
Flow 140 lbf/in Compression Set ⁴ ISO 815 73°F, 22 hr 22 % 158°F, 22 hr 43 %	Tear Strength ³			ISO 34-1
Compression Set ⁴ 73°F, 22 hr 158°F, 22 hr 43 %	Across Flow	130	lbf/in	
73°F, 22 hr 22 % 158°F, 22 hr 43 %	Flow	140	lbf/in	
158°F, 22 hr 43 %	Compression Set ⁴			ISO 815
158°F, 22 hr 194°F, 70 hr 257°F, 70 hr Iardness Shore Hardness Shore A, 1 sec, Injection Molded Shore A, 5 sec, Injection Molded Shore A, 5 sec, Injection Molded 60	73°F, 22 hr	22	%	
194°F, 70 hr 257°F, 70 hr Hardness Shore Hardness Shore A, 1 sec, Injection Molded Shore A, 5 sec, Injection Molded Shore A, 5 sec, Injection Molded 62 62 63	158°F, 22 hr		%	公司
257°F, 70 hr Iardness Shore Hardness Shore A, 1 sec, Injection Molded Shore A, 5 sec, Injection Molded 60 Shore A, 5 sec, Injection Molded 60	194°F, 70 hr	65	%技有DIX	吸分销商
Shore A, 1 sec, Injection Molded Shore A, 5 sec, Injection Molded Shore A, 5 sec, Injection Molded Shore A, 5 sec, Injection Molded	257°F, 70 hr	#B 192	% 工厂	58958513
Shore Hardness Shore A, 1 sec, Injection Molded Shore A, 5 sec, Injection Molded 60 Shore A, 5 sec, Injection Molded	Hardness	Nominal Value	Brit 电话:02	Test Method
Shore A, 1 sec, Injection Molded Shore A, 5 sec, Injection Molded 60	Shore Hardness	LIBIOR APELICO	m BX	ISO 868
Shore A, 5 sec, Injection Molded 60	Shore A, 1 sec, Injection Molded	TEKNOPEX.shane		
	Shore A, 5 sec, Injection Molded	teknor 60		

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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	8.3	%	
Flow: 230°F, 1008 hr	6.2	%	
Across Flow: 100% Strain 230°F, 1008 hr	3.0	%	
Flow: 100% Strain 230°F, 1008 hr	9.0	%	
Across Flow: 257°F, 168 hr	12	%	
Flow: 257°F, 168 hr	3.6	%	
Across Flow: 100% Strain 257°F, 168 hr	5.5	%	
Flow: 100% Strain 257°F, 168 hr	9.8	%	
Change in Tensile Strain at Break in Air ⁵			ISO 188
Across Flow: 230°F, 1008 hr	6.8	%	
Flow: 230°F, 1008 hr	6.7	%	
Across Flow: 257°F, 168 hr	9.5	%	
Flow: 257°F, 168 hr	7.5	%	
Change in Shore Hardness in Air			ISO 188
Shore A, 230°F, 1008 hr ⁶	3.4		
Shore A, 230°F, 1008 hr ⁷	4.1		
Shore A, 230°F, 1008 hr 8	3.6		
Shore A, 257°F, 168 hr ⁷	4.4		
Shore A, 257°F, 168 hr ⁶	3.8		
Shore A, 257°F, 168 hr 8	3.8		
Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity (392°F, 206 sec^-1)	113	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.

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 小技行 M分類 20	
Back Pressure	25.0 to 50.0 psi	
Screw Speed	Moderate-Fast 25,0 to 50.0 psi 20,21-58958519	
Cushion	() () () () () () () () () ()	
Injection Notes	TEKNONSHEIT	

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

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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
	⁴ Type A ⁵ Type 1 ⁶ 5 sec
	⁶ 5 sec
	⁷ 15 sec
	⁸ 1 sec

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