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TEKNOR APEX

Sarlink® TPE ML-1645B BLK Preliminary Data

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Sarlink ML-1600 is a general purpose thermoplastic elastomer series, available in NAT and BLK designed for automotive interior applications. Sarlink ML-1645B BLK is a low hardness, low density grade suitable for injection molding.

General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Chemical Resistant • Good Adhesion • Good Flexibility	• Good Moldability • Good Tear Strength • Good Toughness	• Low Hardness • Low Specific Gravity • 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	0.985	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	3.6	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress [2]			ISO 37
Across Flow : 100% Strain	142	psi	
Flow : 100% Strain	180	psi	
Tensile Stress [2]			ISO 37
Across Flow : Break	998	psi	
Flow : Break	776	psi	
Tensile Elongation [2]			ISO 37
Across Flow : Break	880	%	
Flow : Break	830	%	
Tear Strength [3]			ISO 34-1
Across Flow	89.1	lbf/in	
Flow	99.4	lbf/in	
Compression Set [4]			ISO 815
73°F, 72 hr	17	%	
158°F, 22 hr	32	%	
212°F, 22 hr	61	%	
248°F, 22 hr	74	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Shore Hardness			ISO 868
Shore A, 1 sec, Injection Molded	47		
Shore A, 5 sec, Injection Molded	45		

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Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air [5]			ISO 188
Across Flow : 248°F, 1000 hr	22	%	
Flow : 248°F, 1000 hr	51	%	
Across Flow : 100% Strain 248°F, 1000 hr	20	%	
Flow : 100% Strain 248°F, 1000 hr	18	%	
Change in Tensile Strain at Break in Air [5]			ISO 188
Across Flow : 248°F, 1000 hr	22	%	
Flow : 248°F, 1000 hr	13	%	
Change in Shore Hardness in Air [6]			ISO 188
Shore A, 248°F, 1000 hr	4.7		

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	360 to 400	°F
Middle Temperature	380 to 440	°F
Front Temperature	400 to 460	°F
Nozzle Temperature	400 to 460	°F
Processing (Melt) Temp	400 to 460	°F
Mold Temperature	70 to 100	°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

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 2, 20 in/min

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

[4] Type A

[5] Type 2

[6] Instant