Sarlink® TPE ME-2345B-02 BLK XRD1 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

Friday, June 30, 2017

General Information

Product Description

Sarlink ME-2345B-02 BLK XRD1 is a high performance thermoplastic elastomer used in automotive applications including exterior trim and weatherstripping. Sarlink ME-2345B-02 BLK XRD1 is a low hardness, low density, light stabilized grade suitable for injection molding.

General			
Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Filled • High Slip • Light Stabilized • Low Density	• Low Fogging • Low Friction • Low Hardness • Low Specific Gravity	• Lubricated • Medium Flow • Sunlight Resistant • UV Absorbing
Uses	• Automotive Applications • Automotive Exterior Parts	• Automotive Exterior Trim • Grommets	• Weatherstripping
RoHS Compliance	• RoHS Compliant		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	0.920	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	7.0	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress [2]			ISO 37
Across Flow : 100% Strain	155	psi	
Flow : 100% Strain	245	psi	
Tensile Stress [2]			ISO 37
Across Flow : Break	930	psi	
Flow : Break	569	psi	
Tensile Elongation [2]			ISO 37
Across Flow : Break	900	%	
Flow : Break	680	%	
Tear Strength [3]			ISO 34-1
Across Flow	97	lbf/in	
Flow	120	lbf/in	
Compression Set [4]			ISO 815
73°F, 22 hr	20	%	
158°F, 22 hr	39	%	
194°F, 70 hr	65	%	
257°F, 70 hr	82	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Shore Hardness			ISO 868
Shore A, 1 sec, Injection Molded	48		
Shore A, 5 sec, Injection Molded	45		
Shore A, 15 sec, Injection Molded	43		

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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	6.7	%	
Flow : 230°F, 1008 hr	34	%	
Across Flow : 100% Strain 230°F, 1008 hr	7.6	%	
Flow : 100% Strain 230°F, 1008 hr	9.6	%	
Across Flow : 257°F, 168 hr	16	%	
Flow : 257°F, 168 hr	34	%	
Across Flow : 100% Strain 257°F, 168 hr	4.5	%	
Flow : 100% Strain 257°F, 168 hr	8.6	%	
Change in Tensile Strain at Break in Air [5]			ISO 188
Across Flow : 230°F, 1008 hr	-5.8	%	
Flow : 230°F, 1008 hr	11	%	
Across Flow : 257°F, 168 hr	6.2	%	
Flow : 257°F, 168 hr	22	%	
Change in Shore Hardness in Air			ISO 188
Shore A, 230°F, 1008 hr [6]	1.9		
Shore A, 230°F, 1008 hr [7]	2.2		
Shore A, 230°F, 1008 hr [8]	2.5		
Shore A, 257°F, 168 hr [6]	2.3		
Shore A, 257°F, 168 hr [7]	2.6		
Shore A, 257°F, 168 hr [8]	3.1		

Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity (392°F, 206 sec^-1)	137	Pa·s	ASTM D3835

Legal Statement

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	390 to 410	°F
Middle Temperature	400 to 420	°F
Front Temperature	410 to 430	°F
Nozzle Temperature	420 to 440	°F
Processing (Melt) Temp	420 to 440	°F
Mold Temperature	60 to 90	°F
Injection Pressure	200 to 1000	psi
Injection Rate	Fast	
Back Pressure	25.0 to 125	psi
Screw Speed	50 to 120	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).

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Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	380 to 400	°F
Cylinder Zone 2 Temp.	390 to 410	°F
Cylinder Zone 3 Temp.	400 to 420	°F
Cylinder Zone 4 Temp.	399 to 421	°F
Cylinder Zone 5 Temp.	410 to 430	°F
Die Temperature	420 to 440	°F

Extrusion Notes

Screw Speed: 30 to 100 rpm

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] 1 sec

[7] 5 sec

[8] 15 sec

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