



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

Teknor Apex Company - Thermoplastic Elastomer

## 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 Friction • Low Hardness • Low Specific Gravity • Low to No Fogging	• 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 <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density	0.920	g/cm <sup>3</sup>	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 <sup>2</sup>			ISO 37
Across Flow : 100% Strain	155	psi	
Flow : 100% Strain	245	psi	
Tensile Stress <sup>2</sup>			ISO 37
Across Flow : Break	930	psi	
Flow : Break	569	psi	
Tensile Elongation <sup>2</sup>			ISO 37
Across Flow : Break	900	%	
Flow : Break	680	%	
Tear Strength <sup>3</sup>			ISO 34-1
Across Flow	97	lbf/in	
Flow	120	lbf/in	
Compression Set <sup>4</sup>			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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<b>Aging</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Change in Tensile Strength in Air <sup>5</sup>			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 <sup>5</sup>			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 <sup>6</sup>	1.9		
Shore A, 230°F, 1008 hr <sup>7</sup>	2.2		
Shore A, 230°F, 1008 hr <sup>8</sup>	2.5		
Shore A, 257°F, 168 hr <sup>6</sup>	2.3		
Shore A, 257°F, 168 hr <sup>7</sup>	2.6		
Shore A, 257°F, 168 hr <sup>8</sup>	3.1		
<b>Fill Analysis</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Apparent Viscosity (392°F, 206 sec <sup>-1</sup> )	137	Pa·s	ASTM D3835

**Processing Information**

<b>Injection</b>	<b>Nominal Value</b>	<b>Unit</b>
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	95 to 150	°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

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> Type 1, 20 in/min

<sup>3</sup> Method Ba, Angle (Unnicked), 20 in/min

<sup>4</sup> Type A

<sup>5</sup> Type 1

<sup>6</sup> 1 sec

<sup>7</sup> 5 sec

<sup>8</sup> 15 sec