



# Sarlink® TPE ME-2240DB

Teknor Apex Company - Thermoplastic Elastomer

## General Information

### Product Description

The Sarlink ME-2200 Series is a general purpose thermoplastic elastomer series, available in BLK, designed for automotive exterior molded applications. Sarlink ME-2240DB is a high hardness, low density, UV stabilized grade suitable for injection molding.

### General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Bondability • Chemical Resistant • Good Adhesion • Good Color Stability • Good Mold Release	• Good Moldability • Good Processability • High Hardness • Light Stabilized • Low Density	• Low Specific Gravity • Lubricated • Medium Flow
Uses	• Automotive Applications • Automotive Exterior Parts	• Automotive Exterior Trim • Rubber Replacement	
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	0.928	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	12	g/10 min	ASTM D1238
Molding Shrinkage - Flow <sup>2</sup> (48 hr, Injection Molded)	0.012	in/in	ASTM D955
Molding Shrinkage - Across Flow <sup>2</sup> (48 hr, Injection Molded)	0.012	in/in	ASTM D955
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress <sup>3</sup>			ISO 37
Across Flow : 100% Strain	889	psi	
Flow : 100% Strain	1060	psi	
Tensile Stress <sup>3</sup>			ISO 37
Across Flow : Break	2160	psi	
Flow : Break	1940	psi	
Tensile Elongation <sup>3</sup>			ISO 37
Across Flow : Break	720	%	
Flow : Break	630	%	
Tear Strength <sup>4</sup>			ISO 34-1
Across Flow	379	lbf/in	
Flow	335	lbf/in	
Compression Set <sup>5</sup>			ISO 815
73°F, 22 hr	37	%	
158°F, 22 hr	56	%	
194°F, 70 hr	68	%	
257°F, 70 hr	100	%	

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<b>Hardness</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Shore Hardness			ISO 868
Shore D, 1 sec, Injection Molded	44		
Shore D, 5 sec, Injection Molded	39		
Shore D, 15 sec, Injection Molded	38		
<b>Aging</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Change in Tensile Strength in Air <sup>6</sup>			ISO 188
Across Flow : 230°F, 1008 hr	-1.3	%	
Flow : 230°F, 1008 hr	-3.0	%	
Across Flow : 100% Strain 230°F, 1008 hr	13	%	
Flow : 100% Strain 230°F, 1008 hr	19	%	
Across Flow : 257°F, 168 hr	-2.0	%	
Flow : 257°F, 168 hr	-9.0	%	
Across Flow : 100% Strain 257°F, 168 hr	11	%	
Flow : 100% Strain 257°F, 168 hr	18	%	
Change in Tensile Strain at Break in Air <sup>6</sup>			ISO 188
Across Flow : 230°F, 1008 hr	-3.6	%	
Flow : 230°F, 1008 hr	-10	%	
Across Flow : 257°F, 168 hr	-1.0	%	
Flow : 257°F, 168 hr	-17	%	
Change in Shore Hardness in Air			ISO 188
Shore D, 230°F, 1008 hr <sup>7</sup>	1.0		
Shore D, 230°F, 1008 hr <sup>8</sup>	1.7		
Shore D, 230°F, 1008 hr <sup>9</sup>	1.9		
Shore D, 257°F, 168 hr <sup>7</sup>	-0.90		
Shore D, 257°F, 168 hr <sup>8</sup>	0.30		
Shore D, 257°F, 168 hr <sup>9</sup>	0.70		
<b>Fill Analysis</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Apparent Viscosity (392°F, 206 sec <sup>-1</sup> )	203	Pa·s	ASTM D3835
<b>Additional Information</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Xenon Weatherometer			SAE J2527
Delta E - 1250 kJ	0.280		
Delta E - 2500 kJ	0.250		

**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

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Injection	Nominal Value	Unit
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).

### Notes

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

<sup>2</sup> Plaque dimensions: 100mm x 100mm x 2.37mm

<sup>3</sup> Type 1, 20 in/min

<sup>4</sup> Method Ba, Angle (Unnicked), 20 in/min

<sup>5</sup> Type A

<sup>6</sup> Type 1

<sup>7</sup> 1 sec

<sup>8</sup> 5 sec

<sup>9</sup> 15 sec