



# Sarlink® TPE EE-2340DN XRD (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

## General Information

### Product Description

Sarlink EE-2340DN XRD is a general purpose thermoplastic elastomer used in automotive applications. Sarlink EE-2340DN XRD is a high hardness grade with good UV resistance. This grade can be processed by extrusion.

### General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• High Density • High Hardness • Low Temperature Toughness	• Ozone Resistant • Sunlight Resistant • UV Resistant	• Weather Resistant
Uses	• Automotive Applications	• Automotive Exterior Parts	• Automotive Exterior Trim
RoHS Compliance	• RoHS Compliant		
Appearance	• Opaque		
Forms	• Pellets		
Processing Method	• Extrusion		

## ASTM & ISO Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density	1.15	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	1.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress <sup>2</sup>			ISO 37
Across Flow : 100% Strain	867	psi	
Flow : 100% Strain	1270	psi	
Tensile Stress <sup>2</sup>			ISO 37
Across Flow : Break	2190	psi	
Flow : Break	1710	psi	
Tensile Elongation <sup>2</sup>			ISO 37
Across Flow : Break	700	%	
Flow : Break	460	%	
Tear Strength <sup>3</sup>			ISO 34-1
Across Flow	400	lbf/in	
Flow	310	lbf/in	
Compression Set <sup>4</sup>			ISO 815
73°F, 22 hr	23	%	
158°F, 22 hr	65	%	
194°F, 70 hr	59	%	
257°F, 70 hr	79	%	
Hardness	Nominal Value	Unit	Test Method
Shore Hardness			ISO 868
Shore D, 1 sec, Injection Molded	43		
Shore D, 5 sec, Injection Molded	40		
Shore D, 15 sec, Injection Molded	39		

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Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air <sup>5</sup>			ISO 188
Across Flow : 230°F, 1008 hr	-2.0	%	
Flow : 230°F, 1008 hr	-2.6	%	
Across Flow : 100% Strain 230°F, 1008 hr	14	%	
Flow : 100% Strain 230°F, 1008 hr	17	%	
Across Flow : 257°F, 168 hr	-13	%	
Flow : 257°F, 168 hr	-0.80	%	
Across Flow : 100% Strain 257°F, 168 hr	12	%	
Flow : 100% Strain 257°F, 168 hr	20	%	
Change in Tensile Strain at Break in Air <sup>5</sup>			ISO 188
Across Flow : 230°F, 1008 hr	-8.4	%	
Flow : 230°F, 1008 hr	-28	%	
Across Flow : 257°F, 168 hr	-8.7	%	
Flow : 257°F, 168 hr	-29	%	
Change in Shore Hardness in Air			ISO 188
Shore D, 230°F, 1008 hr <sup>6</sup>	2.7		
Shore D, 230°F, 1008 hr <sup>7</sup>	2.6		
Shore D, 230°F, 1008 hr <sup>8</sup>	2.0		
Shore D, 257°F, 168 hr <sup>7</sup>	1.2		
Shore D, 257°F, 168 hr <sup>6</sup>	1.0		
Shore D, 257°F, 168 hr <sup>8</sup>	1.0		
<b>Fill Analysis</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Apparent Viscosity (392°F, 206 sec <sup>-1</sup> )	423	Pa·s	ASTM D3835

## 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	
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).

### Extrusion

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	330 to 370	°F
Cylinder Zone 2 Temp.	340 to 380	°F
Cylinder Zone 3 Temp.	350 to 390	°F
Cylinder Zone 5 Temp.	360 to 400	°F
Die Temperature	374 to 410	°F

### Extrusion Notes

Screw Speed: 30 to 100 rpm

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### Notes

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

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

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

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<sup>4</sup> Type A

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<sup>5</sup> Type 1

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<sup>6</sup> 5 sec

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<sup>7</sup> 15 sec

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<sup>8</sup> 1 sec