TA TEKNOR APEX

Sarlink® TPE ME-2259D

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Sarlink ME-2259D is a high performance thermoplastic elastomer used in automotive applications, including exterior. Sarlink ME-2259D is a high hardness, medium density grade that can be processed by injection molding.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Filled • Good Color Stability • Good Colorability • Good Melt Strength	• Good Mold Release • Good Moldability • Good Processability • Good Processing Stability	• High Hardness • Low Flow • Medium Density
Uses	• Automotive Applications	• Automotive Exterior Parts	• Automotive Exterior Trim
RoHS Compliance	• RoHS Compliant		
Automotive Specifications	• STELLANTIS MS-DC-243 Color: Natural	• STELLANTIS MS-DC-243 CPN2457 Color: Black [1]	
Appearance	• Black	• Natural Color	• Opaque
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties [2]

Physical	Nominal Value	Unit	Test Method
Density	1.04	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	3.0	g/10 min	ASTM D1238

Mechanical	Nominal Value	Unit	Test Method
Flexural Modulus (2.00 in Span)	178000	psi	ISO 178
Flexural Stress [3]	3130	psi	ISO 178

Elastomers	Nominal Value	Unit	Test Method
Tensile Stress - Across Flow [4] (100% Strain)	2250	psi	ISO 37
Tensile Stress [4]			ISO 37
Across Flow : Break	2060	psi	
Flow : Break	2520	psi	
Tensile Elongation [4]			ISO 37
Across Flow : Break	280	%	
Flow : Break	210	%	
Tear Strength [5]			ISO 34-1
Across Flow	693	lbf/in	
Flow	588	lbf/in	
Compression Set [6]			ISO 815
73°F, 22 hr	54	%	
158°F, 22 hr	90	%	
194°F, 70 hr	94	%	

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Hardness	Nominal Value	Unit	Test Method
Shore Hardness			ISO 868
Shore D, 1 sec, Injection Molded	64		
Shore D, 5 sec, Injection Molded	58		
Shore D, 15 sec, Injection Molded	56		

Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air			ISO 188
Across Flow : 230°F, 1008 hr [7]	8.7	%	
Flow : 230°F, 1008 hr [7]	7.5	%	
Across Flow : 100% Strain 230°F, 1008 hr [7]	13	%	
Flow : 100% Strain 230°F, 1008 hr	16	%	
Across Flow : 257°F, 168 hr [7]	5.3	%	
Flow : 257°F, 168 hr [7]	6.7	%	
Across Flow : 100% Strain 257°F, 168 hr [7]	13	%	
Flow : 100% Strain 257°F, 168 hr [7]	16	%	
Change in Tensile Strain at Break in Air [7]			ISO 188
Across Flow : 230°F, 1008 hr	-73	%	
Flow : 230°F, 1008 hr	-60	%	
Across Flow : 257°F, 168 hr	-26	%	
Flow : 257°F, 168 hr	-40	%	
Change in Shore Hardness in Air			ISO 188
Shore D, 230°F, 1008 hr [8]	2.7		
Shore D, 230°F, 1008 hr [9]	2.9		
Shore D, 230°F, 1008 hr [10]	1.7		
Shore D, 257°F, 168 hr [8]	1.9		
Shore D, 257°F, 168 hr [9]	2.0		
Shore D, 257°F, 168 hr [10]	0.50		

Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity (392°F, 207 sec^-1)	463	Pa·s	ASTM D3835

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	440 to 480	°F
Middle Temperature	440 to 480	°F
Front Temperature	440 to 480	°F
Nozzle Temperature	440 to 480	°F
Processing (Melt) Temp	440 to 480	°F
Mold Temperature	60 to 90	°F
Injection Pressure	200 to 1000	psi
Injection Rate	Moderate-Fast	

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Injection	Nominal Value	Unit
Back Pressure	25.0 to 50.0	psi
Screw Speed	50 to 100	rpm
Cushion	0.150 to 1.00	in

Notes

[1] (Formerly approved under Telcar 150)

[2] Typical properties: these are not to be construed as specifications.

[3] Yield Strength at 5% yield

[4] Type 1, 20 in/min

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

[6] Type A

[7] Type 1

[8] 5 sec delay

[9] 15 sec delay

[10] Instant