Sarlink® TPE EE-1240N

Teknor Apex Company - Thermoplastic Elastomer

Thursday, June 29, 2017

General Information

Product Description

Sarlink EE-1240 is a general purpose thermoplastic elastomer with good elastic properties designed for exterior automotive applications.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Filled • High Density • High Specific Gravity	• Low Flow • Low Hardness • Lubricated	• Slip
Uses	• Automotive Applications • Automotive Exterior Parts • Automotive Exterior Trim	• Automotive Interior Parts • General Purpose • Grommets	• Weatherstripping
RoHS Compliance	• RoHS Compliant		
Appearance	• Opaque		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.17	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	0.20	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress [2]			ISO 37
Across Flow : 100% Strain	100	psi	
Flow : 100% Strain	167	psi	
Tensile Stress [2]			ISO 37
Across Flow : Break	783	psi	
Flow : Break	493	psi	
Tensile Elongation [2]			ISO 37
Across Flow : Break	890	%	
Flow : Break	660	%	
Tear Strength [3]			ISO 34-1
Across Flow	86	lbf/in	
Flow	110	lbf/in	
Compression Set [4]			ISO 815
73°F, 22 hr	11	%	
158°F, 22 hr	28	%	
194°F, 70 hr	56	%	
257°F, 70 hr	76	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Shore Hardness			ISO 868
Shore A, 1 sec, Injection Molded	45		
Shore A, 5 sec, Injection Molded	42		
Shore A, 15 sec, Injection Molded	40		

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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	30	%	
Flow : 230°F, 1008 hr	47	%	
Across Flow : 100% Strain 230°F, 1008 hr	7.3	%	
Flow : 100% Strain 230°F, 1008 hr	-3.5	%	
Across Flow : 257°F, 168 hr	39	%	
Flow : 257°F, 168 hr	56	%	
Across Flow : 100% Strain 257°F, 168 hr	12	%	
Flow : 100% Strain 257°F, 168 hr	-3.5	%	
Change in Tensile Strain at Break in Air [5]			ISO 188
Across Flow : 230°F, 1008 hr	-1.1	%	
Flow : 230°F, 1008 hr	20	%	
Across Flow : 257°F, 168 hr	3.0	%	
Flow : 257°F, 168 hr	27	%	
Change in Shore Hardness in Air			ISO 188
Shore A, 230°F, 1008 hr [6]	2.2		
Shore A, 230°F, 1008 hr [7]	3.3		
Shore A, 230°F, 1008 hr [8]	4.0		
Shore A, 257°F, 168 hr [6]	0.20		
Shore A, 257°F, 168 hr [7]	0.60		
Shore A, 257°F, 168 hr [8]	0.90		

Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity (392°F, 206 sec^-1)	258	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	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 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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