Sarlink® TPE EE-2270N-01

Teknor Apex Company - Thermoplastic Elastomer

Thursday, June 29, 2017

General Information

Product Description

Sarlink TPE EE-2270N-01 is a general purpose thermoplastic elastomer designed for automotive exterior applications including trim and weatherstripping. Sarlink TPE 2270N-01 is a medium hardness, low density UV stabilized grade suitable for extrusion.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Filled • Light Stabilized • Low Density • Low Flow	• Low Specific Gravity • Lubricated • Medium Hardness • Slip	• Sunlight Resistant • UV Absorbing
Uses	• Automotive Applications • Automotive Exterior Parts	• Automotive Exterior Trim • Automotive Interior Parts	• Grommets • Weatherstripping
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Extrusion		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	0.920	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	5.0	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress [2]			ISO 37
Across Flow : 100% Strain	306	psi	
Flow : 100% Strain	403	psi	
Tensile Stress [2]			ISO 37
Across Flow : Break	1540	psi	
Flow : Break	1120	psi	
Tensile Elongation [2]			ISO 37
Across Flow : Break	770	%	
Flow : Break	610	%	
Tear Strength [3]			ISO 34-1
Across Flow	200	lbf/in	
Flow	210	lbf/in	
Compression Set [4]			ISO 815
73°F, 22 hr	24	%	
158°F, 22 hr	52	%	
194°F, 70 hr	65	%	
257°F, 70 hr	81	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Shore Hardness			ISO 868
Shore A, 1 sec, Injection Molded	72		
Shore A, 5 sec, Injection Molded	68		
Shore A, 15 sec, Injection Molded	67		

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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	3.7	%	
Flow : 230°F, 1008 hr	-0.40	%	
Across Flow : 100% Strain 230°F, 1008 hr	13	%	
Flow : 100% Strain 230°F, 1008 hr	7.6	%	
Across Flow : 257°F, 168 hr	-0.90	%	
Flow : 257°F, 168 hr	-3.9	%	
Across Flow : 100% Strain 257°F, 168 hr	11	%	
Flow : 100% Strain 257°F, 168 hr	9.4	%	
Change in Tensile Strain at Break in Air [5]			ISO 188
Across Flow : 230°F, 1008 hr	-1.6	%	
Flow : 230°F, 1008 hr	0.0	%	
Across Flow : 257°F, 168 hr	-3.9	%	
Flow : 257°F, 168 hr	-3.3	%	
Change in Shore Hardness in Air			ISO 188
Shore A, 230°F, 1008 hr [6]	4.9		
Shore A, 230°F, 1008 hr [7]	6.1		
Shore A, 230°F, 1008 hr [8]	6.4		
Shore A, 257°F, 168 hr [6]	3.3		
Shore A, 257°F, 168 hr [7]	4.0		
Shore A, 257°F, 168 hr [8]	4.4		

Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity (392°F, 206 sec^-1)	244	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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