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TEKNOR APEX

Sarlink® TPV 2774N

Teknor Apex Company - Thermoplastic Vulcanizate

General Information

Product Description

Sarlink 2774N is a high performance thermoplastic vulcanizate used in automotive applications. Sarlink 2774N is a medium hardness, low density, lubricated grade exhibiting sunlight resistance and UV absorbing characteristics. This grade can be processed by injection molding and extrusion.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Bondability • Filled • Good Color Stability • Good Colorability • Good Melt Strength • Good Mold Release	• Good Moldability • Good Processability • Light Stabilized • Low Density • Low Flow • Low Specific Gravity	• Lubricated • Medium Hardness • Medium Viscosity • Slip
Uses	• Automotive Applications • Automotive Exterior Trim	• Automotive Interior Parts • Automotive Interior Trim	
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	• Opaque
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	0.960	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	0.30	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress [2]			ISO 37
Across Flow : 100% Strain	339	psi	
Flow : 100% Strain	557	psi	
Tensile Stress [2]			ISO 37
Across Flow : Break	798	psi	
Flow : Break	667	psi	
Tensile Elongation [2]			ISO 37
Across Flow : Break	450	%	
Flow : Break	210	%	
Tear Strength [3]			ISO 34-1
Across Flow	138	lbf/in	
Flow	143	lbf/in	
Compression Set [4]			ISO 815
73°F, 22 hr	20	%	
158°F, 22 hr	32	%	
194°F, 70 hr	37	%	
257°F, 70 hr	49	%	

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Hardness	Nominal Value	Unit	Test Method
Shore Hardness			ISO 868
Shore A, 1 sec, Injection Molded	75		
Shore A, 5 sec, Injection Molded	71		
Shore A, 15 sec, Injection Molded	69		
Aging	**Nominal Value**	**Unit**	**Test Method**
Change in Tensile Strength in Air [5]			ISO 188
Across Flow : 230°F, 1008 hr	2.0	%	
Flow : 230°F, 1008 hr	0.40	%	
Across Flow : 100% Strain 230°F, 1008 hr	10	%	
Flow : 100% Strain 230°F, 1008 hr	8.8	%	
Across Flow : 257°F, 168 hr	5.5	%	
Flow : 257°F, 168 hr	2.2	%	
Across Flow : 100% Strain 257°F, 168 hr	11	%	
Flow : 100% Strain 257°F, 168 hr	9.1	%	
Change in Tensile Strain at Break in Air [5]			ISO 188
Across Flow : 230°F, 1008 hr	-5.4	%	
Flow : 230°F, 1008 hr	-17	%	
Across Flow : 257°F, 168 hr	-4.5	%	
Flow : 257°F, 168 hr	-20	%	
Change in Shore Hardness in Air			ISO 188
Shore A, 230°F, 1008 hr [6]	3.1		
Shore A, 230°F, 1008 hr [7]	2.9		
Shore A, 230°F, 1008 hr [8]	1.7		
Shore A, 257°F, 168 hr [6]	2.9		
Shore A, 257°F, 168 hr [7]	2.5		
Shore A, 257°F, 168 hr [8]	1.7		
Fill Analysis	**Nominal Value**	**Unit**	**Test Method**
Apparent Viscosity (392°F, 206 sec^-1)	330	Pa·s	ASTM D3835

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	344 to 416	°F
Middle Temperature	354 to 426	°F
Front Temperature	364 to 436	°F
Nozzle Temperature	374 to 446	°F
Processing (Melt) Temp	374 to 446	°F
Mold Temperature	60 to 90	°F
Injection Pressure	200 to 1000	psi
Injection Rate	Fast	
Back Pressure	25.0 to 125	psi

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Injection	Nominal Value	Unit
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).

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	330 to 400	°F
Cylinder Zone 2 Temp.	340 to 410	°F
Cylinder Zone 3 Temp.	350 to 420	°F
Cylinder Zone 4 Temp.	360 to 430	°F
Cylinder Zone 5 Temp.	360 to 430	°F
Die Temperature	374 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] 15 sec

[7] 5 sec

[8] 1 sec