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TEKNOR APEX

Sarlink® TPV 24587

Teknor Apex Company - Thermoplastic Vulcanizate

General Information

Product Description

Sarlink TPV 24587 is a high performance thermoplastic vulcanizate used in automotive & consumer/industrial applications. Sarlink TPV 24587 is a high hardness, low density, lubricated grade exhibiting excellent tear strength. This grade is suitable for both injection molding and extrusion.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Filled • Good Mold Release • Good Moldability • Good Processability	• Good Tear Strength • High Hardness • Light Stabilized • Low Density	• Low Flow • Low Specific Gravity • Lubricated • Medium Viscosity
Uses	• Expansion Joint • Gaskets • Grommets	• Plugs • Shock Absorbing Pads • Tubing	• Weatherstripping
Agency Ratings	• UL 94		
RoHS Compliance	• RoHS Compliant		
UL File Number	• QMFZ2.E54709		
Appearance	• Black	• Opaque	
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	0.920	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	3.0	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress [2]			ISO 37
Across Flow : 100% Strain	837	psi	
Flow : 100% Strain	1220	psi	
Tensile Stress [2]			ISO 37
Across Flow : Break	1330	psi	
Flow : Break	1750	psi	
Tensile Elongation [2]			ISO 37
Across Flow : Break	470	%	
Flow : Break	440	%	
Tear Strength [3]			ISO 34-1
Across Flow	424	lbf/in	
Flow	259	lbf/in	
Compression Set [4]			ISO 815
73°F, 22 hr	32	%	
158°F, 22 hr	49	%	
194°F, 70 hr	58	%	
257°F, 70 hr	76	%	

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Hardness	Nominal Value	Unit	Test Method
Shore Hardness			ISO 868
Shore A, 1 sec, Injection Molded	90		
Shore A, 5 sec, Injection Molded	87		
Shore A, 15 sec, Injection Molded	86		
Thermal	**Nominal Value**	**Unit**	**Test Method**
RTI Elec	122	°F	UL 746B
RTI Imp	122	°F	UL 746B
RTI Str	122	°F	UL 746B
Aging	**Nominal Value**	**Unit**	**Test Method**
Change in Tensile Strength in Air [5]			ISO 188
Across Flow : 230°F, 1008 hr	1.1	%	
Flow : 230°F, 1008 hr	-2.5	%	
Across Flow : 100% Strain 230°F, 1008 hr	12	%	
Flow : 100% Strain 230°F, 1008 hr	19	%	
Across Flow : 257°F, 168 hr	-0.80	%	
Flow : 257°F, 168 hr	9.1	%	
Across Flow : 100% Strain 257°F, 168 hr	13	%	
Flow : 100% Strain 257°F, 168 hr	33	%	
Change in Tensile Strain at Break in Air [5]			ISO 188
Across Flow : 230°F, 1008 hr	-9.6	%	
Flow : 230°F, 1008 hr	-20	%	
Across Flow : 257°F, 168 hr	-18	%	
Flow : 257°F, 168 hr	-32	%	
Change in Shore Hardness in Air			ISO 188
Shore A, 230°F, 1008 hr [6]	0.10		
Shore A, 230°F, 1008 hr [7]	0.20		
Shore A, 230°F, 1008 hr [8]	0.50		
Shore A, 257°F, 168 hr [6]	0.10		
Shore A, 257°F, 168 hr [7]	0.20		
Shore A, 257°F, 168 hr [8]	0.50		
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (0.06 in, All Colors)	HB		UL 94
Fill Analysis	**Nominal Value**	**Unit**	**Test Method**
Apparent Viscosity (392°F, 206 sec^-1)	264	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

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Injection	Nominal Value	Unit
Nozzle Temperature	374 to 446	°F
Processing (Melt) Temp	374 to 446	°F
Mold Temperature	95 to 140	°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

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.	355 to 425	°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