+135-3858-6433 (GuangDong)
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TEKNOR APEX

Sarlink® TPE A5-01765

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Sarlink A5-01765 is an adhesion-modified thermoplastic elastomer designed for over-molding (insert and multi-shot) and co-extrusion onto many engineering thermoplastics, including: PC, ABS, PC/ABS, CoPE, PET, PBT, PMMA, PSA, ASA, SAN, POM, and more. It exhibits dry haptics and is well suited for automotive applications.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Bondability • Chemical Resistant • Conformable • Crack Resistant • Good Colorability • Good Flexibility	• Good Flow • Good Impact Resistance • Good Moldability • Good Scratch Resistance • Good Toughness • Halogen Free	• High Density • High Specific Gravity • Light Stabilized • Low Compression Set • Medium Hardness
Uses	• Automotive Applications • Automotive Exterior Parts • Automotive Interior Parts	• Bonding • Gaskets • Knobs	• Overmolding • Soft Touch Applications
RoHS Compliance	• RoHS Compliant		
Appearance	• Black • Colors Available	• Natural Color • Opaque	
Forms	• Pellets		
Processing Method	• Injection Molding	• Multi Injection Molding	

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.18	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, 3]			ISO 37
Across Flow : 100% Strain	370	psi	
Flow : 100% Strain	410	psi	
Tensile Stress [2, 3]			ISO 37
Across Flow : Break	692	psi	
Flow : Break	737	psi	
Tensile Elongation [2, 3]			ISO 37
Across Flow : Break	580	%	
Flow : Break	460	%	
Tear Strength [4, 3]			ISO 34-1
Across Flow	159	lbf/in	
Flow	153	lbf/in	
Compression Set [5]			ISO 815
73°F, 22 hr	18	%	
158°F, 22 hr	65	%	

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Hardness	Nominal Value	Unit	Test Method
Shore Hardness [3]			ISO 868
Shore A, Instant, Injection Molded	70		
Shore A, 5 sec, Injection Molded	67		
Shore A, 15 sec, Injection Molded	66		

Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air [6]			ISO 188
Across Flow : 230°F, 1000 hr	-5.6	%	
Flow : 230°F, 1000 hr	-6.2	%	
Change in Tensile Strain at Break in Air [6]			ISO 188
Across Flow : 230°F, 1000 hr	-30	%	
Flow : 230°F, 1000 hr	-10	%	
Change in Shore Hardness in Air [7]			ISO 188
Shore A, 230°F, 1000 hr	-1.0		

Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity (392°F, 207 sec^-1)	530	Pa·s	ASTM D3835

Additional Information	Nominal Value	Unit
Adhesion to ABS		
Adhesion to ASA		
Adhesion to COPE		
Adhesion to PBT		
Adhesion to PC		
Adhesion to PC/ABS		
Adhesion to PMMA		
Adhesion to POM		

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	176	°F
Drying Time	3.0 to 4.0	hr
Rear Temperature	392 to 464	°F
Middle Temperature	392 to 482	°F
Front Temperature	428 to 500	°F
Nozzle Temperature	428 to 500	°F
Processing (Melt) Temp	428 to 500	°F
Mold Temperature	90 to 130	°F
Injection Pressure	200 to 800	psi
Injection Rate	Fast	
Back Pressure	25.0 to 100	psi
Screw Speed	50 to 100	rpm
Cushion	0.150 to 1.00	in

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Injection Notes

Drying is strongly suggested to enhance bondability.

For any overmolding process it is recommended that the process temperatures for the TPE material be set at least 50°F (10°C)higher than the melt temperature of the substrate material.

Notes

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

[2] Type 1, 20 in/min

[3] 24hr conditioning

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

[5] Type A

[6] Type 1

[7] 15 sec delay