



Telcar® TL-1017A-S (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Telcar TL-1017A-S is a high performance thermoplastic elastomer designed for electrical applications requiring flexibility over a wide temperature range. Telcar TL-1017A-S is a high hardness, low density, lubricated grade that is RoHS compliant. This grade is suitable for both injection molding and extrusion.

General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Bromine Free • Good Colorability • Good Melt Strength • Good Mold Release • Good Moldability • Good Processability	• Good Processing Stability • Good Tear Strength • Halogen Free • High Hardness • High Melt Stability • High Tensile Strength	• Light Stabilized • Low Density • Low Flow • Low Specific Gravity • Lubricated • Without Fillers
Uses	• Insulation • Jacketing	• Wire & Cable Applications • Wire Jacketing	
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	• Translucent
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.880		ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	1.5	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ²			ASTM D412
Across Flow : 100% Strain	1350	psi	
Flow : 100% Strain	1670	psi	
Tensile Stress ²			ASTM D412
Across Flow : 300% Strain	1350	psi	
Flow : 300% Strain	1750	psi	
Tensile Strength ²			ASTM D412
Across Flow : Break	1980	psi	
Flow : Break	2090	psi	
Tensile Elongation ²			ASTM D412
Across Flow : Break	690	%	
Flow : Break	570	%	
Tear Strength ²			ASTM D624
Across Flow	402	lbf/in	
Flow	540	lbf/in	
Compression Set ³			ASTM D395B
73°F, 22 hr	64	%	
158°F, 22 hr	87	%	

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Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore D, 1 sec, Injection Molded	51		
Shore D, 5 sec, Injection Molded	49		
Shore D, 10 sec, Injection Molded	47		

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	440 to 480	°F
Middle Temperature	440 to 480	°F
Front Temperature	440 to 480	°F
Nozzle Temperature	440 to 480	°F
Processing (Melt) Temp	440 to 480	°F
Mold Temperature	60 to 90	°F
Injection Pressure	200 to 1000	psi
Injection Rate	Moderate-Fast	
Back Pressure	25.0 to 50.0	psi
Screw Speed	50 to 100	rpm
Cushion	0.150 to 1.00	in
Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	420 to 460	°F
Cylinder Zone 2 Temp.	420 to 460	°F
Cylinder Zone 3 Temp.	420 to 460	°F
Cylinder Zone 4 Temp.	420 to 460	°F
Cylinder Zone 5 Temp.	420 to 460	°F
Die Temperature	420 to 460	°F

Extrusion Notes

Screw Speed: 30 to 100 rpm

Notes

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

² Die C, 20 in/min

³ Type 1