GLS AE1-839A

Thermoplastic Elastomer

Key Characteristics

Product Description			
GLS AE1-839A is a high transparency bio-based TPE, which have excellent chemical resistance. It can overmolding to a variety of substrates including PC, ABS and PC/ABS.			
General			
Material Status	• Commercial: Active		
Regional Availability	• Asia Pacific		
Features	• Chemical Resistant		
Uses	• Flexible Grips • General Purpose	• Overmolding • Soft Touch Applications	• Sporting Goods
RoHS Compliance	• RoHS Compliant		
Appearance	• Clear/Transparent		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	0.900	0.900	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	16 g/10 min	16 g/10 min	ASTM D1238
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Strength [2, 3] (Break, 73°F (23°C))	798 psi	5.50 MPa	ASTM D412
Tensile Elongation [2, 3] (Break, 73°F (23°C))	770 %	770 %	ASTM D412
Tear Strength	183 lbf/in	32.0 kN/m	ASTM D624
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Durometer Hardness (Shore A, 10 sec)	43	43	ASTM D2240
Fill Analysis	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Apparent Viscosity			ASTM D3835
392°F (200°C), 11200 sec^-1	11.7 Pa·s	11.7 Pa·s	

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Rear Temperature	390 to 525 °F	199 to 274 °C
Middle Temperature	390 to 525 °F	199 to 274 °C
Front Temperature	390 to 525 °F	199 to 274 °C
Nozzle Temperature	390 to 525 °F	199 to 274 °C
Mold Temperature	70 to 140 °F	21 to 60 °C
Back Pressure	0.00 to 50.0 psi	0.00 to 0.345 MPa
Screw Speed	50 to 125 rpm	50 to 125 rpm

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Injection Notes

Drying is not Required

Injection Speed: 0.5 to 3 in/sec
1st Stage - Boost Pressure: 500 to 900 psi
2nd Stage - Hold Pressure: 70% of Boost
Hold Time (Thick Part): 4 to 10 sec
Hold Time (Thin Part): 1 to 3 sec

Notes

[1] Typical values are not to be construed as specifications.

[2] Die C

[3] 2 hr

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