GLS AD7-010B

Thermoplastic Elastomer

Key Characteristics

Product Description		
GLS AD7-010B is customized TPE designed for injection molding with good processability and short cycle time.		
General		
Material Status	• Commercial: Active	
Regional Availability	• Asia Pacific	
Features	• Good Colorability	• Good Flow
Uses	• Consumer Applications • Flexible Grips	• Overmolding • Personal Care
Agency Ratings	• FDA [1]	
RoHS Compliance	• RoHS Compliant	
Appearance	• Clear/Transparent	
Forms	• Pellets	
Processing Method	• Injection Molding	

Technical Properties [2]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	0.895	0.895	ASTM D792
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress [3, 4] (300% Strain, 73°F (23°C))	435 psi	3.00 MPa	ASTM D412
Tensile Strength [3, 4] (Break, 73°F (23°C))	682 psi	4.70 MPa	ASTM D412
Tensile Elongation [3, 4] (Break, 73°F (23°C))	630 %	630 %	ASTM D412
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Durometer Hardness (Shore A, 10 sec)	47	47	ASTM D2240
Fill Analysis	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Apparent Viscosity			ASTM D3835
392°F (200°C), 11200 sec^-1	8.70 Pa·s	8.70 Pa·s	

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Suggested Max Regrind	20 %	20 %
Rear Temperature	320 to 356 °F	160 to 180 °C
Front Temperature	356 to 410 °F	180 to 210 °C
Nozzle Temperature	374 to 428 °F	190 to 220 °C
Mold Temperature	59 to 95 °F	15 to 35 °C
Back Pressure	0.00 to 80.0 psi	0.00 to 0.552 MPa

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Injection Notes

Color concentrates with polypropylene (PP), ethylene vinyl acetate (EVA), or polyethylene (PE) carrier are most suitable for coloring GLS AD7-010B. Improved color dispersion can be achieved by using higher melt flow concentrates (with a melt flow from 25 - 40 g/10 min). Typical loadings for color concentrates are 1% to 5% by weight. Liquid color can be used, but mineral oil based carriers may have a significant effect on the final hardness value. Concentrates based on PVC should not be used. A high color match consistency can be obtained by using precolored compounds available from GLS. The final determination of color concentrate suitability should be determined by customer trials.

Purge thoroughly before and after use of this product with a low flow (0.5 - 2.5 MFR) polyethylene (PE) or polypropylene (PP).

Regrind levels up to 20% can be used with GLS AD7-010B with minimal property loss, provided that the regrind is free of contamination. To minimize losses during molding, the melt temperature should remain as low as possible. The final determination of regrind effectiveness should be determined by the customer.

GLS AD7-010B has excellent melt stability. Maximum residence times may vary, depending on the size of the barrel. Generally, the barrel should be emptied if it is idle for periods of 8 - 10 minutes or longer.

Drying is not Required

Injection Speed: 0.5 to 3 in/sec
1st Stage - Boost Pressure: 400 to 900 psi

Notes

[1] Please contact GLS Thermoplastic Elastomers for a copy of the FDA compliance letter.

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

[3] Die C

[4] 2 hr

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