GLS 457-125 TRANSLUCENT

Thermoplastic Elastomer

Key Characteristics

Product Description		
GLS 457-125 TRANSLUCENT is a customized grade which has bonding force with ABS and PC/ABS.		
General		
Material Status	• Commercial: Active	
Regional Availability	• Asia Pacific	
Features	• Good Colorability	• Good Flow
Uses	• Flexible Grips • Gaskets	• Overmolding • Seals
Agency Ratings	• FDA [1]	
RoHS Compliance	• RoHS Compliant	
Appearance	• Translucent	
Forms	• Pellets	
Processing Method	• Injection Molding	

Technical Properties [2]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	0.920	0.920	ASTM D792
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress [3, 4] (300% Strain, 73°F (23°C))	550 psi	3.79 MPa	ASTM D412
Tensile Strength [3, 4] (Break, 73°F (23°C))	900 psi	6.21 MPa	ASTM D412
Tensile Elongation [3, 4] (Break, 73°F (23°C))	580 %	580 %	ASTM D412
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Durometer Hardness (Shore A, 10 sec)	59	59	ASTM D2240
Fill Analysis	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Apparent Viscosity			ASTM D3835
392°F (200°C), 11200 sec^-1	12.0 Pa·s	12.0 Pa·s	

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Suggested Max Regrind	20 %	20 %
Rear Temperature	390 to 410 °F	199 to 210 °C
Middle Temperature	410 to 430 °F	210 to 221 °C
Front Temperature	430 to 460 °F	221 to 238 °C
Nozzle Temperature	440 to 460 °F	227 to 238 °C
Mold Temperature	60 to 100 °F	16 to 38 °C
Back Pressure	0.00 to 120 psi	0.00 to 0.827 MPa
Screw Speed	40 to 100 rpm	40 to 100 rpm

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Injection Notes

Color concentrates with polypropylene (PP), ethylene vinyl acetate (EVA), or low density polyethylene (PE) carriers are most suitable for coloring GLS 457-125. 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).

Injection Speed: 1 to 3 in/sec
1st Stage - Boost Pressure: 350 to 900 psi
2nd Stage - Hold Pressure: 30% of Boost
Hold Time (Thick Part): 3 to 10 sec
Hold Time (Thin Part): 1 to 3 sec

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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