GLS 317-127 EU

Thermoplastic Elastomer

Key Characteristics

Product Description	
GLS 317-127 EU is a custom materialand and may be appropriate where FDA and EU 10/2011 compliances are required.	
General	
Material Status	• Commercial: Active
Regional Availability	• Europe
Appearance	• Translucent
Processing Method	• Injection Molding

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	0.892	0.892	ISO 1183
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress [2]			ISO 37
300% Strain, 73°F (23°C), 0.0787 in (2.00 mm)	145 psi	1.00 MPa	
Tensile Strength [2]			ISO 37
Yield, 73°F (23°C), 0.0787 in (2.00 mm)	508 psi	3.50 MPa	
Tensile Elongation [2]			ASTM D412
Break, 73°F (23°C), 0.0787 in (2.00 mm)	> 600 %	> 600 %	
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Shore Hardness (Shore A, 10 sec)	32	32	ISO 48-4
Fill Analysis	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Apparent Viscosity			ISO 11443
392°F (200°C), 1340 sec^-1	25.0 Pa·s	25.0 Pa·s	
392°F (200°C), 11200 sec^-1	5.30 Pa·s	5.30 Pa·s	

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Suggested Max Regrind	20 %	20 %
Rear Temperature	300 to 340 °F	149 to 171 °C
Middle Temperature	360 to 390 °F	182 to 199 °C
Front Temperature	370 to 410 °F	188 to 210 °C
Nozzle Temperature	380 to 420 °F	193 to 216 °C
Processing (Melt) Temp	380 to 420 °F	193 to 216 °C
Mold Temperature	50 to 80 °F	10 to 27 °C
Back Pressure	0.00 to 80.0 psi	0.00 to 0.552 MPa
Screw Speed	80 to 120 rpm	80 to 120 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 317-127 EU. Improved color dispersion can be achieved by using higher melt flow concentrates (with a melt flow of 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 317-127 EU with minimal property loss, provided that the regrind is free of contamination. To minimize losses during molding, the melt tempetature should remain as low as possible. The final determination of regrind effectiveness should be determined by the customer.

GLS 317-127 EU 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: 200 to 700 psi
2nd Stage - Hold Pressure: 20% of Boost
Hold Time (Thick Part): 1 to 5 sec
Hold Time (Thin Part): 1 to 3 sec

Notes

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

[2] 7.9 in/min (200 mm/min)

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