GLS AC1-879 NATURAL

Thermoplastic Elastomer

Key Characteristics

Product Description			
GLS AC1-879 NATURAL is a customized soft TPE grade designed for consumer applications, can be overmolded onto PC, ABS, PC/ABS, and Copolyester.			
General			
Material Status	• Commercial: Active		
Regional Availability	• Asia Pacific		
Features	• General Purpose • Good Colorability	• Good Processability • Soft	
Uses	• Consumer Applications	• Flexible Grips	• Overmolding
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	0.960	0.960	ASTM D792
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Strength [2, 3] (Break, 73°F (23°C))	780 psi	5.38 MPa	ASTM D412
Tensile Elongation [2, 3] (Break, 73°F (23°C))	900 %	900 %	ASTM D412
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Durometer Hardness (Shore A, 10 sec)	35	35	ASTM D2240
Fill Analysis	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Apparent Viscosity			ASTM D3835
392°F (200°C), 11200 sec^-1	9.00 Pa·s	9.00 Pa·s	

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Suggested Max Regrind	20 %	20 %
Rear Temperature	320 to 370 °F	160 to 188 °C
Middle Temperature	350 to 380 °F	177 to 193 °C
Front Temperature	360 to 410 °F	182 to 210 °C
Nozzle Temperature	380 to 420 °F	193 to 216 °C
Mold Temperature	60 to 100 °F	16 to 38 °C
Back Pressure	0.00 to 100 psi	0.00 to 0.689 MPa
Screw Speed	25 to 100 rpm	25 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 AC1-879. 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. Concentrates based on PVC should not be used. 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).

GLS AC1-879 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.

Pre-dry is required, recommended drying temperature 60 to 70C, drying time 2 to 4 hours.

Injection Speed: 1 to 3 in/sec
1st Stage - Boost Pressure: 175 to 800 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] Typical values are not to be construed as specifications.

[2] Die C

[3] 2 hr

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