GLS 491-007

Thermoplastic Elastomer

Key Characteristics

Product Description			
GLS 491-007 Black is a customized grade designed for overmolding onto polycarbonate (PC), ABS,PC/ABS substrates.			
General			
Material Status	• Commercial: Active		
Regional Availability	• Asia Pacific		
Features	• Soft	• UV Stabilized	
Uses	• Consumer Applications	• Electrical/Electronic Applications	• Overmolding
RoHS Compliance	• RoHS Compliant		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	1.09	1.09	ASTM D792
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress [2, 3] (300% Strain, 73°F (23°C))	1030 psi	7.10 MPa	ASTM D412
Tensile Strength [2, 3] (Break, 73°F (23°C))	3190 psi	22.0 MPa	ASTM D412
Tensile Elongation [2, 3] (Break, 73°F (23°C))	830 %	830 %	ASTM D412
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Durometer Hardness			ASTM D2240
Shore A, 10 sec, 73°F (23°C)	77	77	
Fill Analysis	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Apparent Viscosity			ASTM D3835
392°F (200°C), 11200 sec^-1	37.0 Pa·s	37.0 Pa·s	

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	176 to 194 °F	80 to 90 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Suggested Max Moisture	< 0.040 %	< 0.040 %
Rear Temperature	338 to 356 °F	170 to 180 °C
Middle Temperature	347 to 392 °F	175 to 200 °C
Front Temperature	365 to 410 °F	185 to 210 °C
Nozzle Temperature	374 to 428 °F	190 to 220 °C
Processing (Melt) Temp	356 to 428 °F	180 to 220 °C
Mold Temperature	50 to 122 °F	10 to 50 °C
Back Pressure	14.5 to 218 psi	0.100 to 1.50 MPa
Screw Speed	50 to 80 rpm	50 to 80 rpm

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Injection Notes
GLS 491-007 Black must be dried in the dehumidification dryer and the dewpoint must be set at -40°C or below.The molecular sieve of dehumidification dryer should be active.This material should not be left in the barrel for extened idle periods (greater than 5 minutes). Hot Runners :190 to 226°C Hot tip:190 to 232°C Injection speed: low to middle, suggested: 12 to 45 mm/s 1st stage -Boost Pressure: 500 to 1200 psi 2nd stage- Hold pressure: 20 to 60% of Boost Hold time (Thick Part): 2 to 4 sec Hold time (Thin Part) 1 to 2 sec The injection parameters here mentioned is typical value based on our experience, the user are suggested to pay attention and optimize the parameters according to the exact application.

Notes

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

[2] Die C

[3] 2 hr

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