GLS 453-075

Thermoplastic Elastomer

Key Characteristics

Product Description			
GLS 453-075 is a white speckle material. It has good bonding to PC, ABS, PC/ABS, PC/PETG, and PC/PBT			
General			
Material Status	• Commercial: Active		
Regional Availability	• Asia Pacific		
Features	• Good Moldability	• Good Processability	• Good Processing Stability
Uses	• Consumer Applications • Electrical/Electronic Applications	• Overmolding • Personal Care	
RoHS Compliance	• RoHS Compliant		
Appearance	• White		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	0.940	0.940	ASTM D792
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress [2, 3] (300% Strain, 73°F (23°C))	520 psi	3.59 MPa	ASTM D412
Tensile Strength [2, 3] (Break, 73°F (23°C))	768 psi	5.30 MPa	ASTM D412
Tensile Elongation [2, 3] (Break, 73°F (23°C))	650 %	650 %	ASTM D412
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Durometer Hardness			ASTM D2240
Shore A, 10 sec, 73°F (23°C)	59	59	
Fill Analysis	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Apparent Viscosity			ASTM D3835
392°F (200°C), 11200 sec^-1	17.0 Pa·s	17.0 Pa·s	

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Suggested Max Regrind	20 %	20 %
Rear Temperature	350 to 420 °F	177 to 216 °C
Middle Temperature	360 to 430 °F	182 to 221 °C
Front Temperature	380 to 450 °F	193 to 232 °C
Nozzle Temperature	400 to 470 °F	204 to 243 °C
Mold Temperature	70 to 90 °F	21 to 32 °C
Back Pressure	75.0 to 175 psi	0.517 to 1.21 MPa
Screw Speed	75 to 125 rpm	75 to 125 rpm

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Injection Notes

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

GLS 453-075 can use regrind up to 20% with minimal property losses, 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 453-075 has good 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: 1 to 5 in/sec
1st Stage - Boost Pressure: 180 to 580 psi
2nd Stage - Hold Pressure: 50% of Boost
Hold Time (Thick Part): 4 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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