GLS 471-054

Thermoplastic Elastomer

Key Characteristics

Product Description			
GLS 471-054 is a custom grade and it can also overmold to a variety of substrates including PC,ABS, PC/ABS and Copolyester.			
General			
Material Status	• Commercial: Active		
Regional Availability	• Asia Pacific		
Features	• Abrasion Resistant	• Chemical Resistant	• Good Processability
Uses	• Appliances • Consumer Applications • Electrical/Electronic Applications	• Flexible Grips • Overmolding • Soft Touch Applications	• Thin-walled Parts
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	1.09	1.09	ASTM D792
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress [2, 3] (300% Strain)	841 psi	5.80 MPa	ASTM D412
Tensile Strength [2, 3] (Break)	1000 psi	6.92 MPa	ASTM D412
Tensile Elongation [2, 3] (Break)	660 %	660 %	ASTM D412
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Durometer Hardness (Shore A, 10 sec)	63	63	ASTM D2240
Fill Analysis	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Apparent Viscosity (392°F (200°C))	16.6 Pa·s	16.6 Pa·s	ASTM D3835
Additional Information	**Typical Value (English)**	**Typical Value (SI)**	
Generic Material Type	Thermoplastic Elastomer	Thermoplastic Elastomer	

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	140 to 180 °F	60 to 82 °C
Drying Time	1.0 to 3.0 hr	1.0 to 3.0 hr
Suggested Max Moisture	0.020 to 0.030 %	0.020 to 0.030 %
Suggested Max Regrind	20 %	20 %
Rear Temperature	320 to 360 °F	160 to 182 °C
Middle Temperature	360 to 430 °F	182 to 221 °C
Front Temperature	370 to 440 °F	188 to 227 °C
Nozzle Temperature	380 to 460 °F	193 to 238 °C
Processing (Melt) Temp	380 to 450 °F	193 to 232 °C
Mold Temperature	55 to 110 °F	13 to 43 °C

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Injection	Typical Value (English)	Typical Value (SI)
Back Pressure	0.00 to 50.0 psi	0.00 to 0.345 MPa
Screw Speed	50 to 100 rpm	50 to 100 rpm

Injection Notes

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 of up to 20% can be used with GLS AA9-457C with minimal property loss, 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 471-054 should not be left in the barrel for extended idle periods (greater than 10 minutes under 250?).

Suggested Dewpoint: -40°F

Injection Speed: 0.5 to 4 in/sec
1st Stage - Boost Pressure: 500 to 1,000 psi
2nd Stage - Hold Pressure: 20-60% of Boost
Hold Time (Thick Part): 2 to 4 sec
Hold Time (Thin Part): 1 to 2 sec

Notes

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

[2] Die C

[3] 2 hr

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