GLS AD3-555 Midnight Black

Thermoplastic Elastomer

Key Characteristics

Product Description			
GLS AD3-555 Midnight Black is a custom thermoplastic elastomer formulation. Product will overmold onto PC, ABS and PC/ABS.			
General			
Material Status	• Commercial: Active		
Regional Availability	• Asia Pacific		
Features	• Specialty Grade		
Uses	• Consumer Applications	• Overmolding	• Soft Touch Applications
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	1.13	1.13	ASTM D792
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Strength [2, 3] (Break, 73°F (23°C))	3530 psi	24.3 MPa	ASTM D412
Tensile Elongation [2, 3] (Break, 73°F (23°C))	620 %	620 %	ASTM D412
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Durometer Hardness (Shore A, 10 sec)	90	90	ASTM D2240
Fill Analysis	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Apparent Viscosity			Internal Method
392°F (200°C), 11200 sec^-1	55.0 Pa·s	55.0 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	0.020 to 0.030 %	0.020 to 0.030 %
Rear Temperature	350 to 370 °F	177 to 188 °C
Middle Temperature	360 to 390 °F	182 to 199 °C
Front Temperature	374 to 446 °F	190 to 230 °C
Nozzle Temperature	380 to 446 °F	193 to 230 °C
Processing (Melt) Temp	380 to 446 °F	193 to 230 °C
Mold Temperature	55 to 130 °F	13 to 54 °C
Back Pressure	0.00 to 50.0 psi	0.00 to 0.345 MPa
Screw Speed	50 to 80 rpm	50 to 80 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 polypropylene (PP).

GLS AD3-555 Midnight Black should not be left in the barrel for extended idle periods (greater than 5 minutes).

Suggested Dewpoint: -40°F

Hot Runners: 380°F-450°F
Hot Tip: 380°F-450°F

Injection Speed: 0.5 to 2 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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