Dynaflex™ G2755C

Thermoplastic Elastomer

Key Characteristics

Product Description			
Dynaflex™ G2755C is an easy processing TPE designed for injection molding and extrusion applications that require FDA compliance. • Good Ozone and UV Stability • Overmold Adhesion to Polypropylene • Rubbery Feel • Soft Touch			
General			
Material Status	• Commercial: Active		
Regional Availability	• Asia Pacific		
Features	• Good UV Resistance	• Ozone Resistant	
Uses	• Consumer Applications • Flexible Grips • General Purpose	• Overmolding • Personal Care • Soft Touch Applications	• Transparent or Translucent Parts
Agency Ratings	• BfR XXI, section 2.1.3.1.1 [1]	• EU 2002/72/EC [2]	• FDA 21 CFR 177.1210 [3]
RoHS Compliance	• RoHS Compliant		
Appearance	• Translucent		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

Technical Properties [4]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	0.890	0.888 g/cm³	ASTM D792
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress [5, 6] (300% Strain, 73°F (23°C))	400 psi	2.76 MPa	ASTM D412
Tensile Strength [5, 6] (Break, 73°F (23°C))	1100 psi	7.58 MPa	ASTM D412
Tensile Elongation [5, 6] (Break, 73°F (23°C))	740 %	740 %	ASTM D412
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Durometer Hardness (Shore A, 10 sec)	53	53	ASTM D2240
Fill Analysis	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Apparent Viscosity			ASTM D3835
392°F (200°C), 11200 sec^-1	7.60 Pa·s	7.60 Pa·s	

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Suggested Max Regrind	20 %	20 %
Rear Temperature	330 to 350 °F	166 to 177 °C
Middle Temperature	350 to 370 °F	177 to 188 °C
Front Temperature	370 to 440 °F	188 to 227 °C
Nozzle Temperature	370 to 440 °F	188 to 227 °C
Mold Temperature	60.0 to 100 °F	15.6 to 37.8 °C
Back Pressure	50.0 to 150 psi	0.345 to 1.03 MPa
Screw Speed	25 to 75 rpm	25 to 75 rpm

Injection Notes

Color concentrates with polypropylene (PP), ethylene vinyl acetate (EVA), or low density polyethylene (PE) carriers are most suitable for coloring Dynaflex™ G2755C. Improved color dispersion can be achieved by using higher melt flow concentrates (with a melt flow of 25 - 40 g/10 min). Typical loadings for color concentrates are 1% to 5% by weight. Liquid color can be used, but mineral oil based carriers may have a significant effect on the final hardness value. Concentrates based on PVC should not be used. A high color match consistency can be obtained by using precolored compounds available from GLS. 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).

Regrind levels up to 20% can be used with Dynaflex™ G2755C with minimal property loss, provided that the regrind is free of contamination. To minimize losses during molding, the melt tempetature should remain as low as possible. The final determination of regrind effectiveness should be determined by the customer.

Dynaflex™ G2755C 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.

Drying is not Required

Injection Speed: 1 to 5 in/sec
1st Stage - Boost Pressure: 150 to 550 psi
2nd Stage - Hold Pressure: 50% of Boost
Hold Time (Thick Part): 4 to 10 sec
Hold Time (Thin Part): 4 to 10 sec

Notes

[1] Please contact GLS Thermoplastic Elastomers for a copy of the BfR compliance letter.

[2] Please contact GLS Thermoplastic Elastomers for a copy of the EU compliance letter.

[3] Please contact GLS Thermoplastic Elastomers for a copy of the FDA compliance letter.

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

[5] Die C

[6] 2 hr

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