



Dynaflex™ G6713-0001

Thermoplastic Elastomer

Key Characteristics

Product Description

Dynaflex™ G6713-0001 is an easy processing TPE designed for use in injection molding and extrusion applications where an extremely soft feel is desired.

- Excellent Colorability
- Good Ozone and UV Stability
- Overmold Adhesion To Polypropylene
- Tactile Feel
- Ultra Soft Touch

General

Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Good Colorability	• Good UV Resistance	• Ozone Resistant
Uses	• Consumer Applications • Flexible Grips • Gaskets	• Overmolding • Personal Care • Seals	• Soft Touch Applications • Toys • Transparent or Translucent Parts
Agency Ratings	• EU 2002/72/EC ¹	• FDA 21 CFR 177.1210 ²	
RoHS Compliance	• RoHS Compliant		
Automotive Specifications	• FMVSS 302		
Appearance	• Translucent		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

Technical Properties ³

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	0.880	0.880	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
190°C/2.16 kg	1.4 g/10 min	1.4 g/10 min	
200°C/5.0 kg	65 g/10 min	65 g/10 min	
Molding Shrinkage - Flow	0.028 to 0.032 in/in	2.8 to 3.2 %	ASTM D955
Elastomers	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Stress ^{4, 5} (100% Strain, 73°F (23°C))	57.0 psi	0.393 MPa	ASTM D412
Tensile Stress ^{4, 5} (300% Strain, 73°F (23°C))	94.0 psi	0.648 MPa	ASTM D412
Tensile Strength ^{4, 5} (Break, 73°F (23°C))	224 psi	1.54 MPa	ASTM D412
Tensile Elongation ^{4, 5} (Break, 73°F (23°C))	650 %	650 %	ASTM D412
Tear Strength	40.0 lbf/in	7.01 kN/m	ASTM D624
Compression Set (73°F (23°C), 22 hr)	9.0 %	9.0 %	ASTM D395B
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness (Shore A, 10 sec)	14	14	ASTM D2240
Fill Analysis	Typical Value (English)	Typical Value (SI)	Test Method
Apparent Viscosity			ASTM D3835
392°F (200°C), 11200 sec ⁻¹	5.20 Pa·s	5.20 Pa·s	

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Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Suggested Max Regrind	20 %	20 %
Rear Temperature	300 to 350 °F	149 to 177 °C
Middle Temperature	350 to 370 °F	177 to 188 °C
Front Temperature	370 to 420 °F	188 to 216 °C
Nozzle Temperature	370 to 420 °F	188 to 216 °C
Mold Temperature	60.0 to 80.0 °F	15.6 to 26.7 °C
Back Pressure	0.00 to 110 psi	0.00 to 0.758 MPa
Screw Speed	50 to 150 rpm	50 to 150 rpm

Injection Notes

Color concentrates with polypropylene (PP), ethylene vinyl acetate (EVA), or low density polyethylene (PE) carriers are most suitable for coloring Dynaflex™ G6713-0001. Improved color dispersion can be achieved by using higher melt flow concentrates (with a melt flow from 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™ G6713-0001 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.

The Dynaflex™ G6713-0001 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 3 in/sec
 1st Stage - Boost Pressure: 150 to 700 psi
 2nd Stage - Hold Pressure: 30% of Boost
 Hold Time (Thick Part): 3 to 10 sec
 Hold Time (Thin Part): 1 to 3 sec

Notes

- ¹ Please contact GLS Thermoplastic Elastomers for a copy of the EU compliance letter.
- ² Please contact GLS Thermoplastic Elastomers for a copy of the FDA compliance letter.
- ³ Typical values are not to be construed as specifications.
- ⁴ Die C
- ⁵ 2 hr

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