



Dynaflex™ G2706-1000-00

Thermoplastic Elastomer

Key Characteristics

Product Description

Dynaflex™ G2706-1000-00 is an easy processing TPE designed for injection molding and extrusion applications that require FDA and medical compliance.

- High Puncture Reseal
- Overmold Adhesion to Polypropylene
- Rubbery Feel
- Soft Touch

General

Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • North America	• South America
Uses	• Consumer Applications • Gaskets • Medical/Healthcare Applications	• Overmolding • Personal Care • Seals	• Soft Touch Applications
Agency Ratings	• EU 2002/72/EC ¹ • FDA 21 CFR 177.1210 ²	• ISO 10993 Part 4 • ISO 10993 Part 5	• USP Class VI
RoHS Compliance	• RoHS Compliant		
Automotive Specifications	• FMVSS 302		
Appearance	• Translucent		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

Technical Properties³

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	0.890	0.888 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	1.0 g/10 min	1.0 g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.045 to 0.055 in/in	4.5 to 5.5 %	ASTM D955
Elastomers	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Stress ^{4, 5} (100% Strain, 73°F (23°C))	90.0 psi	0.621 MPa	ASTM D412
Tensile Stress ^{4, 5} (300% Strain, 73°F (23°C))	340 psi	2.34 MPa	ASTM D412
Tensile Strength ^{4, 5} (Break, 73°F (23°C))	1010 psi	6.96 MPa	ASTM D412
Tensile Elongation ^{4, 5} (Break, 73°F (23°C))	710 %	710 %	ASTM D412
Tear Strength	80.0 lbf/in	14.0 kN/m	ASTM D624
Compression Set (73°F (23°C), 22.0 hr)	8.0 %	8.0 %	ASTM D395B
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness (Shore A, 10 sec)	28	28	ASTM D2240
Fill Analysis	Typical Value (English)	Typical Value (SI)	Test Method
Apparent Viscosity 392°F (200°C), 11200 sec ⁻¹	22.6 Pa·s	22.6 Pa·s	ASTM D3835

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Suggested Max Regrind	20 %	20 %

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Injection	Typical Value (English)	Typical Value (SI)
Rear Temperature	320 to 390 °F	160 to 199 °C
Middle Temperature	340 to 410 °F	171 to 210 °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	0.00 to 110 psi	0.00 to 0.758 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 (LDPE) carriers are most suitable for coloring Dynaflex™ G2706-1000-00. 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 an 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™ G2706-1000-00 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.

Dynaflex™ G2706-1000-00 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: 450 to 1000 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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