

Dynaflex™ G2701-1000-02

Thermoplastic Elastomer GLS Thermoplastic Elastomers



Prospector

Product Description

Dynaflex® G2701-1000-02 is an easy processing TPE designed for injection molding and extrusion applications that require FDA compliance.

- Adhesion to Polypropylene
- Excellent Colorability
- Good Ozone And UV Resistance
- High Flow For Long, Thin-Wall Parts
- Rubbery Feel
- Soft Touch

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • North America	• South America
Features	• Good Colorability • Good UV Resistance	• High Flow • Ozone Resistant	
Agency Ratings	• FDA Unspecified Rating		
Appearance	• Translucent		
Processing Method	• Extrusion	• Injection Molding	

Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.898	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
190°C/2.16 kg		13 g/10 min	
200°C/5.0 kg		61 g/10 min	
Molding Shrinkage - Flow	0.50 to 1.1	%	ASTM D955

Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ^{2, 3}			ASTM D412
100% Strain, 23°C	3.38	MPa	
300% Strain, 23°C	4.62	MPa	
Tensile Strength ^{2, 3} (Break, 23°C)	6.55	MPa	ASTM D412
Tensile Elongation ^{2, 3} (Break, 23°C)	590	%	ASTM D412
Tear Strength	42.0	kN/m	ASTM D624
Compression Set (23°C, 22.0 hr)	24	%	ASTM D395B

Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A, 10 sec)	66		ASTM D2240

Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity (200°C, 11200 sec ⁻¹)	11.0	Pa·s	ASTM D3835

Injection	Nominal Value	Unit
Suggested Max Regrind	20	%
Rear Temperature	132 to 171	°C
Middle Temperature	154 to 193	°C
Front Temperature	168 to 207	°C
Nozzle Temperature	168 to 207	°C
Mold Temperature	15.6 to 26.7	°C
Back Pressure	0.345 to 1.03	MPa
Screw Speed	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® G2701-1000-02. 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® G2701-1000-02 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® G2701-1000-02 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: 250 to 650 psi
2nd Stage - Hold Pressure: 70% of Boost
Hold Time (Thick Part): 4 to 10 sec
Hold Time (Thin Part): 1 to 3 sec

Notes

¹ Typical properties: these are not to be construed as specifications.

² Die C

³ 2 hr