Dynaflex™ G7410-1000-00

Thermoplastic Elastomer

Key Characteristics

Product Description

Dynaflex™ G7410-1000-00 is an easy processing, high performance compound designed for use in applications requiring a tough, durable material.

- Excellent Colorability
- Excellent Heat Stability
- Overmold Adhesion to Polypropylene
- Suitable For Outdoor Use

General

Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Good Colorability	• Good Thermal Stability	• Recyclable Material
Uses	• Outdoor Applications	• Overmolding	
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	0.900	0.900	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	2.0 g/10 min	2.0 g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.018 to 0.022 in/in	1.8 to 2.2 %	ASTM D955
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress [2, 3] (100% Strain, 73°F (23°C))	390 psi	2.69 MPa	ASTM D412
Tensile Stress [2, 3] (300% Strain, 73°F (23°C))	515 psi	3.55 MPa	ASTM D412
Tensile Strength [2, 3] (Break, 73°F (23°C))	750 psi	5.17 MPa	ASTM D412
Tensile Elongation [2, 3] (Break, 73°F (23°C))	500 %	500 %	ASTM D412
Tear Strength	160 lbf/in	28.0 kN/m	ASTM D624
Compression Set (73°F (23°C), 22 hr)	19 %	19 %	ASTM D395B
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Durometer Hardness (Shore A, 10 sec)	68	68	ASTM D2240
Fill Analysis	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Apparent Viscosity			ASTM D3835
392°F (200°C), 11200 sec^-1	14.8 Pa·s	14.8 Pa·s	

Additional Information

Dynaflex™ G7410-1000-00 can be recycled as a filler or impact modifier for polyolefins, or can be recycled by grinding and reintroduction to the molding process. Similar to PP or PE recycling process, if separated appropriately, it can be recycled many times.

Municipality waste stream recycle code is "7" which is designated for "Other".

Please contact GLS Thermoplastic Elastomers for a copy of our Recyclability Compliance letter.

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Suggested Max Regrind	20 %	20 %
Rear Temperature	330 to 400 °F	166 to 204 °C
Middle Temperature	350 to 420 °F	177 to 216 °C
Front Temperature	360 to 430 °F	182 to 221 °C
Nozzle Temperature	360 to 430 °F	182 to 221 °C
Mold Temperature	60 to 80 °F	16 to 27 °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™ G7410-1000-00. 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 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™ G7410-1000-00 with minimal property loss, provided that the regrind is free of contamination. The final determination of regrind effectiveness should be determined by the customer.

Dynaflex™ G7410-1000-00 has excellent melt stability. Empty the barrel for idle periods of thirty (30) 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 values are not to be construed as specifications.

[2] Die C

[3] 2 hr