



Dynalloy™ GP 7810-60T

Thermoplastic Elastomer

Key Characteristics

Product Description

Dynalloy™ GP 7810-60T is a general purpose TPE compound designed for various consumer markets, including like kitchenware, toys, personal and infant care related applications. And the compound is formulated based on hydrogenated styrenic block copolymers (SEBS).

General

Material Status	• Commercial: Active
Regional Availability	• Asia Pacific
Agency Ratings	• FDA Unspecified Rating ¹
RoHS Compliance	• RoHS Compliant
Appearance	• Translucent
Forms	• Pellets
Processing Method	• Injection Molding

Technical Properties ²

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	0.870	0.870	ASTM D792
Elastomers	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Stress ^{3, 4} (300% Strain, 73°F (23°C))	380 psi	2.62 MPa	ASTM D412
Tensile Strength ^{3, 4} (Yield, 73°F (23°C))	782 psi	5.39 MPa	ASTM D412
Tensile Elongation ^{3, 4} (Break, 73°F (23°C))	760 %	760 %	ASTM D412
Tear Strength	177 lbf/in	31.0 kN/m	ASTM D624
Compression Set (73°F (23°C), 22 hr)	13 %	13 %	ASTM D395
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness (Shore A, 10 sec)	60	60	ASTM D2240
Fill Analysis	Typical Value (English)	Typical Value (SI)	Test Method
Apparent Viscosity 392°F (200°C), 11200 sec ⁻¹	6.60 Pa·s	6.60 Pa·s	ASTM D3835

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Suggested Max Regrind	20 %	20 %
Rear Temperature	331 to 370 °F	166 to 188 °C
Middle Temperature	351 to 379 °F	177 to 193 °C
Front Temperature	370 to 441 °F	188 to 227 °C
Nozzle Temperature	360 to 421 °F	182 to 216 °C
Processing (Melt) Temp	379 to 441 °F	193 to 227 °C
Mold Temperature	60.1 to 100 °F	15.6 to 37.8 °C

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Injection Notes

Color concentrates with polypropylene (PP), ethylene vinyl acetate (EVA), or low density polyethylene (PE) carriers are most suitable for coloring Dynalloy™ GP 7810. 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. Concentrates based on PVC should not be used. 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 Dynalloy™ GP 7810 with minimal property losses, provided that the regrind is free of contamination.

To minimize losses during molding, the melt temperature should be as low as possible. The final determination of regrind effectiveness should be determined by the customer.

The Dynalloy™ GP 7810 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

Notes

¹ Contact GLS Thermoplastic Elastomers for a copy of the FDA Compliance letter

² Typical values are not to be construed as specifications.

³ Die C

⁴ 2 hr

CONTACT INFORMATION

Americas

United States - Avon Lake
+1 440 930 1000

United States - McHenry
+1 815 385 8500

Asia

China - Guangzhou
+86 20 8732 7260

China - Shenzhen
+86 755 2969 2888

China - Suzhou
+86 512 6823 24 38

China - Suzhou
+86 512 6265 2600

Hong Kong -
+852 2690 5332

Taiwan - Yonghe City,
+886 9396 99740, +886 2929 1849

Europe

Germany - Gaggenau
+49 7225 6802 0

Spain - Barbastro (Huesca)
+34 974 310 314



Beyond Polymers.

Better Business Solutions. SM

www.polyone.com

PolyOne Americas

33587 Walker Road
Avon Lake, Ohio 44012
United States
+1 440 930 1000
+1 866 POLYONE

PolyOne Asia

No. 88 Guoshoujing Road
Z.J Hi-tech Park, Pudong
Shanghai, 201203, China
+86 21 5080 1188

PolyOne Europe

6 Giallewee
+352 269 050 35

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