



# Dynaflex™ G7960-1001-00

## Thermoplastic Elastomer

### Key Characteristics

#### Product Description

Dynaflex™ G7960-1001-00 is an easy processing, general purpose TPE designed for a wide variety of applications, including those where FDA compliance is required.

- Overmold Adhesion to Polypropylene
- Rubbery Feel
- Soft Touch

#### General

|                           |                                                          |                                                         |                                                          |
|---------------------------|----------------------------------------------------------|---------------------------------------------------------|----------------------------------------------------------|
| Material Status           | • Commercial: Active                                     |                                                         |                                                          |
| Regional Availability     | • Africa & Middle East<br>• Asia Pacific                 | • Latin America<br>• North America                      |                                                          |
| Features                  | • General Purpose<br>• Good Colorability                 | • Good Flow<br>• Good Processability                    | • Good Processing Stability<br>• Recyclable Material     |
| Uses                      | • Consumer Applications<br>• Flexible Grips<br>• Gaskets | • General Purpose<br>• Household Goods<br>• Overmolding | • Seals<br>• Soft Touch Applications<br>• Sporting Goods |
| Agency Ratings            | • FDA 21 CFR 177.2600 <sup>1</sup>                       | • UL 94                                                 |                                                          |
| RoHS Compliance           | • RoHS Compliant                                         |                                                         |                                                          |
| Automotive Specifications | • FMVSS 302                                              |                                                         |                                                          |
| Appearance                | • Natural Color                                          |                                                         |                                                          |
| Forms                     | • Pellets                                                |                                                         |                                                          |
| Processing Method         | • Injection Molding                                      |                                                         |                                                          |

### Technical Properties <sup>2</sup>

| Physical                                                 | Typical Value (English) | Typical Value (SI) | Test Method |
|----------------------------------------------------------|-------------------------|--------------------|-------------|
| Specific Gravity                                         | 1.18                    | 1.18               | ASTM D792   |
| Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)                 | 11 g/10 min             | 11 g/10 min        | ASTM D1238  |
| Molding Shrinkage - Flow                                 | 9.0E-3 to 0.015 in/in   | 0.90 to 1.5 %      | ASTM D955   |
| Elastomers                                               | Typical Value (English) | Typical Value (SI) | Test Method |
| Tensile Stress <sup>3,4</sup> (100% Strain, 73°F (23°C)) | 310 psi                 | 2.14 MPa           | ASTM D412   |
| Tensile Stress <sup>3,4</sup> (300% Strain, 73°F (23°C)) | 380 psi                 | 2.62 MPa           | ASTM D412   |
| Tensile Strength <sup>3,4</sup> (Break, 73°F (23°C))     | 920 psi                 | 6.34 MPa           | ASTM D412   |
| Tensile Elongation <sup>3,4</sup> (Break, 73°F (23°C))   | 760 %                   | 760 %              | ASTM D412   |
| Tear Strength                                            | 140 lbf/in              | 24.5 kN/m          | ASTM D624   |
| Compression Set (73°F (23°C), 22 hr)                     | 17 %                    | 17 %               | ASTM D395B  |
| Hardness                                                 | Typical Value (English) | Typical Value (SI) | Test Method |
| Durometer Hardness (Shore A, 10 sec)                     | 60                      | 60                 | ASTM D2240  |
| Flammability                                             | Typical Value (English) | Typical Value (SI) | Test Method |
| Flame Rating (0.06 in (1.5 mm))                          | HB                      | HB                 | UL 94       |
| Fill Analysis                                            | Typical Value (English) | Typical Value (SI) | Test Method |
| Apparent Viscosity                                       |                         |                    | ASTM D3835  |
| 392°F (200°C), 11200 sec <sup>-1</sup>                   | 9.30 Pa·s               | 9.30 Pa·s          |             |

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## Additional Information

Dynaflex™ G7960-1001-00 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      | 320 to 350 °F           | 160 to 177 °C      |
| Middle Temperature    | 350 to 380 °F           | 177 to 193 °C      |
| Front Temperature     | 370 to 430 °F           | 188 to 221 °C      |
| Nozzle Temperature    | 380 to 440 °F           | 193 to 227 °C      |
| Mold Temperature      | 60.0 to 100 °F          | 15.6 to 37.8 °C    |
| Back Pressure         | 0.00 to 150 psi         | 0.00 to 1.03 MPa   |
| Screw Speed           | 40 to 100 rpm           | 40 to 100 rpm      |

## Injection Notes

Color concentrates with polypropylene (PP), ethylene vinyl acetate (EVA), or low density polyethylene (PE) carriers are most suitable for coloring Dynaflex™ G7960-1001-00. 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. 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 Dynaflex™ G7960-1001-00 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™ G7960-1001-00 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 3 in/sec

1st Stage - Boost Pressure: 350 to 900 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

<sup>1</sup> Please contact GLS Thermoplastic Elastomers for a copy of the FDA compliance letter.

<sup>2</sup> Typical values are not to be construed as specifications.

<sup>3</sup> Die C

<sup>4</sup> 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



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[www.polyone.com](http://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 Giällewee  
+352 269 050 35

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