# Dynaflex™ G2755C

## Thermoplastic Elastomer

## Key Characteristics

| Product Description |
|---|

Dynaflex™ G2755C is an easy processing TPE designed for injection molding and extrusion applications that require FDA compliance.

- Overmold Adhesion to Polypropylene
- Rubbery Feel
- Soft Touch

| General | | | |
|---|---|---|---|
| Material Status | • Commercial: Active | | |
| Regional Availability | • Asia Pacific | | |
| Features | • Good Colorability<br>• Good Stability | • Ozone Resistant<br>• Recyclable Material | • UV Resistant |
| Uses | • Consumer Applications<br>• Flexible Grips<br>• General Purpose | • Overmolding<br>• Personal Care<br>• Soft Touch Applications | • Transparent or Translucent Parts |
| Agency Ratings | • EU 10/2011 [1] | • FDA 21 CFR 177.1210 [2] | • FDA 21 CFR 177.2600 |
| RoHS Compliance | • RoHS Compliant | | |
| Appearance | • Translucent | | |
| Forms | • Pellets | | |
| Processing Method | • Extrusion | • Injection Molding | |

## Technical Properties [3]

| Physical | Typical Value (English) | Typical Value (SI) | Test Method |
|---|---|---|---|
| Density / Specific Gravity | 0.890 | 0.890 | ASTM D792 |
| **Elastomers** | **Typical Value (English)** | **Typical Value (SI)** | **Test Method** |
| Tensile Stress [4, 5] (300% Strain, 73°F (23°C)) | 400 psi | 2.76 MPa | ASTM D412 |
| Tensile Strength [4, 5] (Break, 73°F (23°C)) | 1100 psi | 7.58 MPa | ASTM D412 |
| Tensile Elongation [4, 5] (Break, 73°F (23°C)) | 740 % | 740 % | ASTM D412 |
| **Hardness** | **Typical Value (English)** | **Typical Value (SI)** | **Test Method** |
| Durometer Hardness (Shore A, 10 sec) | 53 | 53 | ASTM D2240 |
| **Fill Analysis** | **Typical Value (English)** | **Typical Value (SI)** | **Test Method** |
| Apparent Viscosity | | | ASTM D3835 |
| 392°F (200°C), 11200 sec^-1 | 7.60 Pa·s | 7.60 Pa·s | |

## Additional Information

Dynaflex™ G2755C 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 350 °F | 166 to 177 °C |
| Middle Temperature | 350 to 370 °F | 177 to 188 °C |
| Front Temperature | 370 to 440 °F | 188 to 227 °C |
| Nozzle Temperature | 370 to 440 °F | 188 to 227 °C |
| Mold Temperature | 60 to 100 °F | 16 to 38 °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™ G2755C. Improved color dispersion can be achieved by using higher melt flow concentrates (with a melt flow of 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™ G2755C with minimal property loss, provided that the regrind is free of contamination. To minimize losses during molding, the melt tempetature should remain as low as possible. The final determination of regrind effectiveness should be determined by the customer.

Dynaflex™ G2755C 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: 150 to 550 psi
2nd Stage - Hold Pressure: 50% of Boost
Hold Time (Thick Part): 4 to 10 sec
Hold Time (Thin Part): 4 to 10 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