# Dynalloy™ GP 7820-60N

## Thermoplastic Elastomer

### Key Characteristics

| Product Description | | |
|---|---|---|
| Dynalloy™ GP 7820-60N 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 | • EU 10/2011 | • FDA 21 CFR 177.1210 [1] |
| RoHS Compliance | • RoHS Compliant | |
| Appearance | • Natural Color | |
| Forms | • Pellets | |
| Processing Method | • Extrusion | • Injection Molding |

### Technical Properties [2]

| Physical | Typical Value (English) | Typical Value (SI) | Test Method |
|---|---|---|---|
| Density / Specific Gravity | 0.980 | 0.980 | ASTM D792 |
| **Elastomers** | **Typical Value (English)** | **Typical Value (SI)** | **Test Method** |
| Tensile Strength [3, 4] (Yield, 73°F (23°C)) | 888 psi | 6.12 MPa | ASTM D412 |
| Tensile Elongation [3, 4] (Break, 73°F (23°C)) | 680 % | 680 % | ASTM D412 |
| **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 | | | ASTM D3835 |
| 392°F (200°C), 11200 sec^-1 | 5.49 Pa·s | 5.49 Pa·s | |

### Processing Information

| Injection | Typical Value (English) | Typical Value (SI) |
|---|---|---|
| Suggested Max Regrind | 20 % | 20 % |
| Rear Temperature | 330 to 370 °F | 166 to 188 °C |
| Middle Temperature | 350 to 380 °F | 177 to 193 °C |
| Front Temperature | 370 to 440 °F | 188 to 227 °C |
| Nozzle Temperature | 360 to 420 °F | 182 to 216 °C |
| Processing (Melt) Temp | 380 to 440 °F | 193 to 227 °C |
| Mold Temperature | 60 to 100 °F | 16 to 38 °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™ 7820. 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™ 7820 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™ 7820 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

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