# GLS 230-166C

## Thermoplastic Elastomer

### Key Characteristics

**Product Description**

GLS 230-166C is an easy processing, general purpose TPE designed for a wide variety of applications.

- Non-Slip Grip
- Overmold Adhesion to Polypropylene
- Soft Touch, Rubbery Feel

| General | | | |
|---|---|---|---|
| Material Status | • Commercial: Active | | |
| Regional Availability | • Asia Pacific | | |
| Features | • General Purpose<br>• Good Colorability | • Good Flow<br>• Good Processability | • Good Processing Stability |
| Uses | • Consumer Applications<br>• Flexible Grips<br>• Gaskets | • General Purpose<br>• Overmolding<br>• Seals | • Soft Touch Applications |
| RoHS Compliance | • RoHS Compliant | | |
| Forms | • Pellets | | |
| Processing Method | • Injection Molding | | |

### Technical Properties [1]

| Physical | Typical Value (English) | Typical Value (SI) | Test Method |
|---|---|---|---|
| Density / Specific Gravity | 1.12 | 1.12 | ASTM D792 |
| Molding Shrinkage - Flow | 0.010 to 0.020 in/in | 1.0 to 2.0 % | ASTM D955 |
| **Elastomers** | **Typical Value (English)** | **Typical Value (SI)** | **Test Method** |
| Tensile Stress [2, 3] (300% Strain, 73°F (23°C)) | 249 psi | 1.72 MPa | ASTM D412 |
| Tensile Strength [2, 3] (Break, 73°F (23°C)) | 529 psi | 3.65 MPa | ASTM D412 |
| Tensile Elongation [2, 3] (Break, 73°F (23°C)) | 760 % | 760 % | ASTM D412 |
| **Hardness** | **Typical Value (English)** | **Typical Value (SI)** | **Test Method** |
| Durometer Hardness (Shore A, 10 sec) | 40 | 40 | ASTM D2240 |

### Processing Information

| Injection | Typical Value (English) | Typical Value (SI) |
|---|---|---|
| Suggested Max Regrind | 20 % | 20 % |
| Rear Temperature | 320 to 370 °F | 160 to 188 °C |
| Middle Temperature | 350 to 380 °F | 177 to 193 °C |
| Front Temperature | 360 to 428 °F | 182 to 220 °C |
| Nozzle Temperature | 380 to 428 °F | 193 to 220 °C |
| Mold Temperature | 60 to 100 °F | 16 to 38 °C |
| Back Pressure | 0.00 to 100 psi | 0.00 to 0.689 MPa |
| Screw Speed | 25 to 100 rpm | 25 to 100 rpm |

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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 GLS 230-166C. 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 GLS 230-166C 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 GLS 230-166C 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: 175 to 800 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

[1] Typical values are not to be construed as specifications.

[2] Die C

[3] 2 hr

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