**Technical Data Sheet**

# *Duragrip* DGR 6070BK

Thermoplastic Elastomer
LyondellBasell Industries
Engineering Plastics

## Product Description

DuraGrip® 6070BK is a general purpose Thermoplastic Elastomer (TPE) designed for injection molding and extrusion processes. It has a high coefficient of friction, low melt viscosity and bonds well to polypropylene. DuraGrip® 6070BK is not hygroscopic and under normal conditions does not require drying.

## General

| | | |
|---|---|---|
| Features | • General Purpose<br>• Good Adhesion | • High Friction<br>• Low Viscosity |
| Agency Ratings | • EU 2002/96/EC (WEEE) | |
| RoHS Compliance | • RoHS Compliant | |
| Appearance | • Black | |
| Forms | • Pellets | |
| Processing Method | • Extrusion | • Injection Molding |

| Physical | Nominal Value (English) | Nominal Value (SI) | Test Method |
|---|---|---|---|
| Density / Specific Gravity | | | |
| -- | 0.987 | 0.985 g/cm³ | ASTM D792 |
| -- | 0.983 g/cm³ | 0.983 g/cm³ | ISO 1183 |
| **Elastomers** | **Nominal Value (English)** | **Nominal Value (SI)** | **Test Method** |
| Tensile Stress | | | ASTM D412<br>ISO 37 |
| 100% Strain | 380 psi | 2.62 MPa | |
| 300% Strain | 497 psi | 3.43 MPa | |
| Tensile Strength (Yield) | 1210 psi | 8.34 MPa | ASTM D412<br>ISO 37 |
| Tensile Elongation (Break) | 640 % | 640 % | ASTM D412<br>ISO 37 |
| Tear Strength [1] | 163 lbf/in | 28.5 kN/m | ASTM D624 |
| **Hardness** | **Nominal Value (English)** | **Nominal Value (SI)** | **Test Method** |
| Durometer Hardness (Shore A, 5 Sec) | 72 | 72 | ASTM D2240<br>ISO 868 |
| **Fill Analysis** | **Nominal Value (English)** | **Nominal Value (SI)** | **Test Method** |
| Melt Viscosity (374°f (190°c), 294 Sec^-1) | 130 Pa·s | 130 Pa·s | ASTM D3835 |

## Additional Information

The value listed as Density -Specific Gravity, ASTM D792, was tested in accordance with ASTM D471.
The value listed as Density, ISO 1183, was tested in accordance with ISO 2781.

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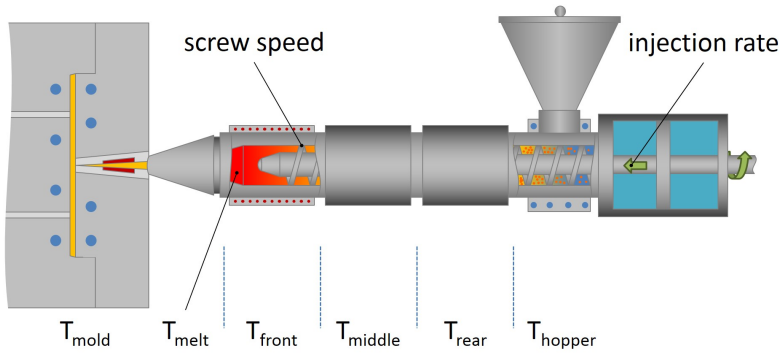


| Injection | Nominal Value (English) | Nominal Value (SI) |
|---|---|---|
| Rear Temperature | 370 to 390 °F | 188 to 199 °C |
| Middle Temperature | 390 to 410 °F | 199 to 210 °C |
| Front Temperature | 420 to 440 °F | 216 to 227 °C |
| Nozzle Temperature | 400 to 430 °F | 204 to 221 °C |
| Processing (Melt) Temp | 390 to 430 °F | 199 to 221 °C |
| Mold Temperature | 110 to 130 °F | 43 to 54 °C |
| Injection Pressure | 150 to 600 psi | 1.03 to 4.14 MPa |
| Screw Speed | 25 to 100 rpm | 25 to 100 rpm |

**Injection Notes**

Injection Speed: 1 to 3 in³/sec
Injection Time (1st Stage/Boost): 0.5 to 4 sec
Second Stage Pressure: 150 to 300 psi
Second Stage Time: 3 to 10 sec
Cooling Time: 10 to 20 sec
Back Pressure: 20 to 75 %