

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 - Good Adhesion	- High Friction - 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 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 ISO 37
Tensile Elongation (Break)	640 %	640 %	ASTM D412 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 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 %