

# DuraGrip® DGR 6070BK

Thermoplastic Elastomer

Advanced Polymer Alloys

## Message:

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 Information			
Features	High Friction		
	Low viscosity		
	Good adhesion		
	General		
Agency Ratings	EU 2002/96/EC (WEEE)		
RoHS Compliance	RoHS compliance		
Appearance	Black		
Forms	Particle		
Processing Method	Extrusion		
	Injection molding		

Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	0.985	g/cm <sup>3</sup>	ASTM D792
--	0.983	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage			ASTM D955
Flow: 1.59mm	2.1	%	ASTM D955
Flow: 3.18mm	1.3	%	ASTM D955
Transverse flow: 1.59mm	1.1	%	ASTM D955
Transverse flow: 3.18mm	1.2	%	ASTM D955

Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A, 5 sec)	72		ASTM D2240, ISO 868

Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412, ISO 37
100% strain	2.62	MPa	ASTM D412, ISO 37
300% strain	3.43	MPa	ASTM D412, ISO 37
Tensile Strength (Yield)	8.34	MPa	ASTM D412, ISO 37
Tensile Elongation (Break)	640	%	ASTM D412, ISO 37
Tear Strength <sup>1</sup>	28.5	kN/m	ASTM D624

Fill Analysis	Nominal Value	Unit	Test Method
Melt Viscosity (190°C, 294 sec <sup>-1</sup> )	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.

Injection	Nominal Value	Unit
Rear Temperature	188 - 199	°C
Middle Temperature	199 - 210	°C
Front Temperature	216 - 227	°C
Nozzle Temperature	204 - 221	°C
Processing (Melt) Temp	199 - 221	°C
Mold Temperature	43.3 - 54.4	°C
Injection Pressure	1.03 - 4.14	MPa
Screw Speed	25 - 100	rpm

#### Injection instructions

Injection Speed: 1 to 3 in<sup>3</sup>/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 %

#### NOTE

1. C mould

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