

# DuraGrip® DGR 6840NC

Thermoplastic Elastomer

Advanced Polymer Alloys

## Message:

DuraGrip® 6840NC is an FDA compliant Thermoplastic Elastomer (TPE) that is easy to use in injection molding and extrusion processes. DuraGrip® 6840NC has an excellent soft touch feel, good elasticity, will bond to polypropylene and some polyethylenes. It complies with 21 C.F.R. 177.2600 and 21 C.F.R. 177.1210 (non-fatty/non-oily foodstuffs). DuraGrip® 6840NC is not hygroscopic and under normal conditions does not require drying.

General Information	
Features	Good adhesion
Agency Ratings	EU 2002/96/EC (WEEE)
	FDA 21 CFR 177.1210
	FDA 21 CFR 177.2600
RoHS Compliance	RoHS compliance
Appearance	Natural color
Forms	Particle
Processing Method	Extrusion
	Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.978	g/cm <sup>3</sup>	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/5.0 kg)	15	g/10 min	ASTM D1238
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A, 5 sec)	44		ASTM D2240, ISO 868
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412, ISO 37
100% strain	1.45	MPa	ASTM D412, ISO 37
300% strain	1.98	MPa	ASTM D412, ISO 37
Tensile Strength (Yield)	5.38	MPa	ASTM D412, ISO 37
Tensile Elongation (Break)	760	%	ASTM D412, ISO 37
Tear Strength <sup>1</sup>	16.1	kN/m	ASTM D624
Fill Analysis	Nominal Value	Unit	Test Method
Melt Viscosity (190°C, 200 sec <sup>-1</sup> )	168	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
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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#### Recommended distributors for this material

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