

AuroraGuard™ 113IM

Aurora Material Solutions, LLC - *Polybutylene Terephthalate*

General Information

Product Description

Impact Resistant, Chemically Resistant PBT

Formerly known as EnCounter 113IM

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin America	
Features	• Chemical Resistant	• Good Impact Resistance	
Uses	• Appliances	• Automotive Applications	• Lawn & Garden Equipment
Appearance	• Black	• Colors Available	• Natural Color
Processing Method	• Injection Molding		
		• Profile Extrusion	

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.21		ASTM D792
Melt Mass-Flow Rate (MFR) (260°C/3.8 kg)	5.5	g/10 min	ASTM D1238
Molding Shrinkage - Flow (0.126 in)	0.016 to 0.020	in/in	ASTM D955
Molding Shrinkage - Across Flow (0.126 in)	0.016 to 0.020	in/in	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	4000	psi	ASTM D638
Tensile Elongation (Break)	100	%	ASTM D638
Flexural Modulus	250000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F)	13	ft-lb/in	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	302	°F	ASTM D648

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	230 to 260	°F
Drying Time	3.0 to 4.0	hr
Suggested Max Moisture	0.040	%
Rear Temperature	450 to 490	°F
Middle Temperature	460 to 500	°F
Front Temperature	470 to 510	°F
Nozzle Temperature	480 to 510	°F
Processing (Melt) Temp	480 to 520	°F
Mold Temperature	130 to 160	°F
Back Pressure	50.0 to 150	psi
Screw Speed	30 to 80	rpm
Vent Depth	5.0E-4 to 1.5E-3	in

Injection Notes

Maximum Drying Time 8.0 hrs

