

AuroraGuard™ 643GFBAR

Aurora Material Solutions, LLC - Polyamide

General Information

Product Description

43% Glass Filled Nylon based on a combination of semi-crystalline and amorphous PA with heat stabilization and lubrication. Excellent property retention even after moisture absorption.

Formerly known as EnLon 643GFBAR

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • North America • Asia Pacific • Latin America
Filler / Reinforcement	• Glass Fiber, 43% Filler by Weight
Additive	• Heat Stabilizer • Lubricant
Features	• Amorphous • Lubricated • Heat Stabilized • Semi Crystalline
Uses	• Automotive Applications • Industrial Applications
Appearance	• Black • Colors Available • Natural Color
Processing Method	• Injection Molding

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.49		ASTM D792
Molding Shrinkage - Flow (0.126 in)	2.0E-3	in/in	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	30000	psi	ASTM D638
Tensile Elongation (Break)	3.0	%	ASTM D638
Flexural Modulus	1.50E+6	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F)	2.5	ft-lb/in	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	390	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed)	400	°F	ASTM D648

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	180	°F
Drying Time	3.0 to 4.0	hr
Suggested Max Moisture	0.020	%
Rear Temperature	490 to 540	°F
Middle Temperature	510 to 550	°F
Front Temperature	520 to 570	°F
Nozzle Temperature	540 to 570	°F
Processing (Melt) Temp	500 to 570	°F
Mold Temperature	160 to 210	°F
Injection Notes		
Maximum Drying Time 4.0 hrs		

Notes

¹ Typical properties: these are not to be construed as specifications.

