

AuroraGuard™ F05GFNH

Aurora Material Solutions, LLC - Polycarbonate

General Information
Product Description

Non-Halogenated Flame Retardant 5% Glass Reinforced Structural Foam Grade PC

Formerly known as EnPure F05GFNH

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin America	
Filler / Reinforcement	• Glass Structural Foam, 5.0% Filler by Weight		
Additive	• Flame Retardant		
Features	• Halogen Free		
Uses	• Automotive Applications	• Business Equipment	• General Purpose
Appearance	• Black	• Colors Available	• Natural Color
Processing Method	• Injection Molding	• Profile Extrusion	

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.24		ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	7.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow (0.126 in)	5.0E-3 to 7.0E-3	in/in	ASTM D955
Water Absorption (Saturation)	0.12	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	7200	psi	ASTM D638
Tensile Elongation (Break)	30	%	ASTM D638
Flexural Modulus	392000	psi	ASTM D790
Flexural Strength	12000	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)	283	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed)	267	°F	ASTM D648
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.59 in	V-0		
0.98 in	5VA		

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	200 to 250	°F
Drying Time	4.0	hr
Suggested Max Moisture	0.020	%
Suggested Shot Size	40 to 75	%
Rear Temperature	550 to 590	°F
Middle Temperature	570 to 610	°F
Front Temperature	590 to 630	°F
Nozzle Temperature	580 to 620	°F
Processing (Melt) Temp	590 to 630	°F
Mold Temperature	180 to 240	°F
Back Pressure	50.0 to 100	psi



Screw Speed	25 to 75 rpm
Vent Depth	1.5E-3 to 3.0E-3 in

Injection Notes

Maximum Drying Time 7 hrs

Notes

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

