AuroraGuard™ ENV17-NC840

Aurora Material Solutions, LLC - *Polyetherimide*

General Information

Product Description

Injection Molding Grade, 20% Glass Bead Reinforced, Low Moisture Absorption, Excellent Processability, Excellent mechanical Strength/Stiffness/Dimensional Stability

NC840 = To Be Assigned 5 Digit Number Indicating Natural, Black, or Custom Color.

The ENV17 Series Products Are Available With Mold Release and/or UV Stabilizer.

Formerly known as ENVIROPLAS® ENV17-NC840

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Bead, 20% Filler by Weight		
Features	• Good Dimensional Stability • Good Processability	• High Stiffness • High Strength	• Low Moisture Absorption
Uses	• Aircraft Applications • Automotive Applications	• Furniture • Pharmaceuticals	• Rail Applications
Appearance	• Black	• Colors Available	• Natural Color
Forms	• Pellets		
Processing Method	• Injection Molding		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.41		ASTM D792
Melt Mass-Flow Rate (MFR) (337°C/6.6 kg)	8.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow (24 hr)	4.0E-3 to 6.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.15	%	ASTM D570
Water Absorption (Equilibrium, 50% RH)	0.10	%	ASTM D570
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [2] (Break)	15500	psi	ASTM D638
Tensile Elongation (Break)	5.0	%	ASTM D638
Flexural Modulus	673000	psi	ASTM D790
Flexural Strength	25400	psi	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (73°F)	0.90	ft·lb/in	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (264 psi, Unannealed, 0.125 in)	356	°F	ASTM D648
CLTE - Flow (-40 to 104°F)	2.2E-5	in/in/°F	ASTM E831
CLTE - Transverse (-40 to 104°F)	2.2E-5	in/in/°F	ASTM E831

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	250	°F
Drying Time	4.0 to 6.0	hr
Suggested Max Moisture	0.050	%
Rear Temperature	600 to 650	°F
Middle Temperature	600 to 650	°F
Front Temperature	600 to 650	°F
Nozzle Temperature	580 to 640	°F

Mold Temperature	200 to 250	°F
Injection Rate	Fast	
Back Pressure	0.00 to 50.0	psi
Screw Speed	50 to 100	rpm

Injection Notes

Injection Pressure: Low
Shot Size to barrel Capacity: 50 - 80%

Notes

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

[2] 7.9E-3 in/min