

AuroraGuard™ ENV13-NC990

Aurora Material Solutions, LLC - Polycarbonate

General Information
Product Description

AuroraGuard™ ENV13-NC990 is a 20% Fiberglass Reinforced, Unpigmented Polycarbonate (PC) Injection Molding Grade. NC990 = Replaced with a 5 Digit Number to Indicate Natural, Black, or a Custom Color.Match. The ENV13 Series Products are Customizable with Differing Percent of Fiberglass, Added Flame Retardant, UV Stabilizer, and/or Impact Modification for Application Specific Requirements.

Formerly branded as ENVIROPLAS®

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight		
Features	• Good Mold Release	• Good Toughness	• High Heat Resistance
Uses	• Agricultural Applications	• Building Materials	• Material Handling
RoHS Compliance	• RoHS Compliant		
Appearance	• Black	• Colors Available	• Natural Color
Forms	• Pellets		
Processing Method	• Injection Molding		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.35		ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	8.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow	2.0E-3 to 4.0E-3	in/in	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Break)	15000	psi	ASTM D638
Tensile Elongation (Break)	3.5	%	ASTM D638
Flexural Modulus	746000	psi	ASTM D790
Flexural Strength	23300	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 (264 psi, Unannealed)	285	°F	ASTM D648
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)	HB		Internal Method

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	225	°F
Drying Time	3.0 to 4.0	hr
Suggested Max Moisture	0.050	%
Rear Temperature	500 to 540	°F
Middle Temperature	520 to 560	°F
Front Temperature	540 to 580	°F
Nozzle Temperature	520 to 560	°F
Mold Temperature	180 to 200	°F
Injection Rate	Moderate	
Back Pressure	50.0 to 300	psi
Screw Speed	40 to 70	rpm

