

**AuroraGuard™ ENV12-V2F1-(b)**

Aurora Material Solutions, LLC - Polycarbonate

## General Information

**Product Description**

Injection Molding Grade, UV Stabilized, Flame Retardant, w/Mold Release. UL94 Flame Rated, UL746C (f2) Outdoor Exposure, Water Exposure and Immersion Recognized Product. REACH and RoHS Compliant.

Note: ENV12-V2F1-(b) Denotes UL Recognizes the (b) to Represent a 4- Digit Number Indicating Natural, Tint, White, Black or Custom Color.

Formerly branded as ENVIROPLAS®.

**General**

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Latin America	• North America
	• Europe		
Additive	• Flame Retardant	• Mold Release	• UV Stabilizer
Features	• Flame Retardant	• Good Mold Release	
	• Good Heat Resistance	• UV Stabilized	
Uses	• Electrical/Electronic Applications	• Outdoor Applications	
Agency Ratings	• EC 1907/2006 (REACH)		
RoHS Compliance	• RoHS Compliant		
UL File Number	• E.192776		
Appearance	• Black	• Colors Available	• Natural Color
Forms	• Pellets		
Processing Method	• Injection Molding		

 Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.20		ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	14	g/10 min	ASTM D1238
Molding Shrinkage - Flow (0.125 in)	5.0E-3 to 7.0E-3	in/in	ASTM D955
Outdoor Suitability	f2		UL 746C
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	9000	psi	ASTM D638
Tensile Elongation (Break)	130	%	ASTM D638
Flexural Modulus	340000	psi	ASTM D790
Flexural Strength	13600	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-22°F	3.5	ft·lb/in	
73°F	12	ft·lb/in	
Gardner Impact			ASTM D5420
-22°F	420	in·lb	
73°F	400	in·lb	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	265	°F	ASTM D648
RTI Elec			UL 746B
0.06 in	176	°F	
0.12 in	176	°F	
RTI Imp			UL 746B
0.06 in	176	°F	



0.12 in	176 °F	
RTI Str		UL 746B
0.06 in	176 °F	
0.12 in	176 °F	
<b>Electrical</b>	<b>Nominal Value</b>	<b>Unit Test Method</b>
Comparative Tracking Index (CTI)	PLC 3	UL 746A
High Amp Arc Ignition (HAI)		UL 746A
0.06 in	PLC 1	
0.12 in	PLC 1	
High Voltage Arc Tracking Rate (HVTR)	PLC 0	UL 746A
Hot-wire Ignition (HWI)		UL 746A
0.06 in	PLC 3	
0.12 in	PLC 2	
<b>Flammability</b>	<b>Nominal Value</b>	<b>Unit Test Method</b>
Flame Rating		UL 94
0.06 in	V-2	
0.12 in	V-2	

### Processing Information

<b>Injection</b>	<b>Nominal Value</b>	<b>Unit</b>
Drying Temperature	230	°F
Drying Time	3.0 to 4.0	hr
Suggested Max Moisture	0.020	%
Rear Temperature	500 to 540	°F
Middle Temperature	500 to 540	°F
Front Temperature	500 to 540	°F
Nozzle Temperature	480 to 520	°F
Mold Temperature	160 to 200	°F
Injection Rate	Moderate-Fast	
Back Pressure	50.0 to 200	psi
Screw Speed	40 to 70	rpm

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

