

**AuroraGuard™ PC 15 FR-(a)**

Aurora Material Solutions, LLC - Polycarbonate

**General Information**
**Product Description**

Injection Molding Grade, UV Stabilized, Flame Retardant, w/Mold Release. UL94 Flame Rated, Elevated RTI and UL746C (f1) Outdoor Exposure, Water Exposure and Immersion Recognized Product. REACH and RoHS Compliant.

Note: PC 15 FR-(a) Denotes UL Recognizes the (a) to Represent a 4 or 5 Digit Number Indicating Natural, Tint, White, Black or Grey

Formerly branded as ENVIROPLAS®.

**General**

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • North America • Asia Pacific • Latin America
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 • Natural Color • White
Forms	• Pellets
Processing Method	• Injection Molding

**Properties <sup>1</sup>**

<b>Physical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Density / Specific Gravity	1.20		ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	12	g/10 min	ASTM D1238
Molding Shrinkage - Flow (0.125 in)	5.0E-3 to 7.0E-3	in/in	ASTM D955
Outdoor Suitability	f1		UL 746C
<b>Mechanical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Tensile Strength (Yield)	9000	psi	ASTM D638
Tensile Elongation (Break)	100	%	ASTM D638
Flexural Modulus	334000	psi	ASTM D790
Flexural Strength	13600	psi	ASTM D790
<b>Impact</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Notched Izod Impact			ASTM D256
-22°F	3.5	ft-lb/in	
73°F	12	ft-lb/in	
Gardner Impact			ASTM D5420
-22°F	400	in-lb	
73°F	440	in-lb	
<b>Thermal</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Deflection Temperature Under Load (264 psi, Unannealed)	268	°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 Unit</b>	<b>Test Method</b>
Volume Resistivity		1.0E+12 ohms·cm	IEC 60093
Electric Strength		610 V/mil	ASTM D149
Comparative Tracking Index (CTI)		PLC 2	UL 746A
High Amp Arc Ignition (HAI)			UL 746A
0.06 in		PLC 0	
0.12 in		PLC 0	
High Voltage Arc Tracking Rate (HVTR)		PLC 0	UL 746A
Hot-wire Ignition (HWI)			UL 746A
0.06 in		PLC 2	
0.12 in		PLC 2	
<b>Flammability</b>		<b>Nominal Value Unit</b>	<b>Test Method</b>
Flame Rating			UL 94
0.06 in		V-0	
0.12 in	•	V-0	
	•	5VA	

### Processing Information

<b>Injection</b>		<b>Nominal Value 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.

