

AuroraGuard™ 122-78003

Aurora Material Solutions, LLC - Polycarbonate

General Information
Product Description

Injection Molding Grade, Custom Color Grey, UV Stabilized, Flame Retardant, with Mold Release. UL 94 Flame Rated, Elevated RTI and UL 746C (f1) Outdoor Exposure, Water Exposure and Immersion Recognized Product. REACH and RoHS Compliant.

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		
Forms	• Pellets		
Processing Method	• Injection Molding		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.20		ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	15	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
Mechanical	Nominal Value	Unit	Test Method
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
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-22°F	3.0	ft·lb/in	
73°F	10	ft·lb/in	
Gardner Impact			ASTM D5420
-22°F	400	in·lb	
73°F	440	in·lb	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	268	°F	ASTM D648
RTI Elec			UL 746B
0.06 in	257	°F	
0.12 in	257	°F	
RTI Imp			UL 746B
0.06 in	248	°F	
0.12 in	248	°F	



RTI Str			UL 746B
0.06 in		257 °F	
0.12 in		257 °F	
Electrical		Nominal Value	Unit
Volume Resistivity		1.0E+16	ohms·cm
Electric Strength		640	V/mil
Comparative Tracking Index (CTI)		PLC 2	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 2	UL 746A
Hot-wire Ignition (HWI)			UL 746A
0.06 in		PLC 3	
0.12 in		PLC 2	
Flammability		Nominal Value	Unit
Flame Rating			UL 94
0.06 in		V-0	
0.12 in	•	V-0	
	•	5VA	
Glow Wire Flammability Index			IEC 60695-2-12
0.06 in		1710	°F
0.12 in		1760	°F
Glow Wire Ignition Temperature			IEC 60695-2-13
0.06 in		1760	°F
3.00 in		1760	°F

Processing Information

Injection		Nominal Value	Unit
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 560	°F
Front Temperature		500 to 560	°F
Nozzle Temperature		500 to 540	°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

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

