

AuroraGuard™ 124-(a)

Aurora Material Solutions, LLC - Polycarbonate

General Information

Product Description

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

Note: 124-(a) Denotes UL Recognizes the (a) to Represent a 4 or 5 Digit Number Indicating, Natural, Tint, Black or Custom Color.

Formerly known as ENVIROPLAS® 124-(a)

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	• UV Stabilized
Uses	• Electrical/Electronic Applications	• Housings	• Outdoor Applications
Agency Ratings	• EC 1907/2006 (REACH)		
RoHS Compliance	• RoHS Compliant		
UL File Number	• E.192776		
Appearance	• Black	• Colors Available	• Natural Color
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)	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	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	13000	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	400	in·lb	
73°F	440	in·lb	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	270	°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	



		176 °F	
Electrical		Nominal Value	Unit
Volume Resistivity		1.0E+12	ohms·cm
Electric Strength		610	V/mil
Arc Resistance		PLC 4	ASTM D495
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	
Flammability		Nominal Value	Unit
Flame Rating			UL 94
0.06 in		V-0	
0.12 in		• V-0	
		• 5VA	

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 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

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

