

AuroraGuard™ 122-11000

Aurora Material Solutions, LLC - Polycarbonate

General Information

Product Description

AuroraGuard™ 122-11000 is a UV stabilized and flame retardant, translucent injection molding grade polycarbonate.

Formerly branded as ENVIROPLAS®

General

Material Status	• Commercial: Active
Availability	<ul style="list-style-type: none"> • Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Additive	<ul style="list-style-type: none"> • Flame Retardant • Mold Release • UV Stabilizer
Features	<ul style="list-style-type: none"> • Flame Retardant • Good Heat Resistance • Good Mold Release • UV Stabilized
Uses	<ul style="list-style-type: none"> • Electrical/Electronic Applications • Outdoor Applications
Agency Ratings	• EC 1907/2006 (REACH)
RoHS Compliance	• RoHS Compliant
UL File Number	• E.192776
Appearance	• Natural Color
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)	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
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	3.5	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)	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 Test Method
Volume Resistivity		1.0E+16	ohms·cm IEC 60093
Electric Strength		640	V/mil IEC 60243-1
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 Test Method
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 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.

