AuroraGuard™ 121-20144

Aurora Material Solutions, LLC - *Polycarbonate*

General Information

Product Description

AuroraGuard™ 121-20144 is a UV Stabilized, Flame Retardant, Blue Polycarbonate Injection Molding Grade.

Formerly branded as ENVIROPLAS®.

General			
Material Status	• Commercial: Active		
Availability	• Asia Pacific • Europe	• Latin America • North America	
Additive	• Flame Retardant	• Mold Release	• UV Stabilizer
Features	• Flame Retardant • Good Heat Resistance	• Good Mold Release • UV Stabilized	
Uses	• Electrical/Electronic Applications	• Outdoor Applications	
Agency Ratings	• EC 1907/2006 (REACH)		
RoHS Compliance	• RoHS Compliant		
UL File Number	• E.192776		
Appearance	• Blue		
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)	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	

Electrical	Nominal Value	Unit	Test Method
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		

Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.06 in	V-2		
0.12 in	V-2		

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.