

AuroraGuard™ ENV15-NHFR-(a)

Aurora Material Solutions, LLC - Polycarbonate + ABS

General Information
Product Description

AuroraGuard™ ENV15-NHFR-(a) is a Non-Chlorinated/Non-Brominated Flame Retardant, Polycarbonate/Acrylonitrile Butadiene Styrene (PC/ABS). Where (a) Denotes UL Recognizes the (a) to Represent a 5 Digit Number Indicating Natural, Black or Custom Color.

Formerly known as ENVIROPLAS® ENV15-(NHFR-a)

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Additive	• Flame Retardant • Mold Release		
Features	• Bromine Free • Chemical Resistant • Chlorine Free	• Flame Retardant • Good Flow • Good Impact Resistance	• Good Mold Release • Hydrolytically Stable
Uses	• Appliance Components • Electric Vehicle (EV) Applications	• Electrical/Electronic Applications • Housings	• Medical/Healthcare Applications • Personal Care
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

	Nominal Value	Unit	Test Method
Physical			
Density / Specific Gravity	1.19		ASTM D792
Melt Mass-Flow Rate (MFR) (260°C/5.0 kg)	35	g/10 min	ASTM D1238
Molding Shrinkage - Flow (0.125 in)	0.040 to 0.060	in/in	ASTM D955
Mechanical			
Tensile Strength (Yield)	8900	psi	ASTM D638
Tensile Elongation (Break)	65	%	ASTM D638
Flexural Modulus	348000	psi	ASTM D790
Flexural Strength	13000	psi	ASTM D790
Impact			
Notched Izod Impact (73°F)	10	ft·lb/in	ASTM D256
Gardner Impact (73°F)	400	in·lb	ASTM D5420
Thermal			
Deflection Temperature Under Load (264 psi, Unannealed)	175	°F	ASTM D648
RTI Elec			UL 746B
0.06 in	140	°F	
0.12 in	140	°F	
RTI Imp			UL 746B
0.06 in	140	°F	
0.12 in	140	°F	
RTI Str			UL 746B
0.06 in	140	°F	
0.12 in	140	°F	
Electrical			
Comparative Tracking Index (0.118 in)	200	V	IEC 60112



High Amp Arc Ignition (HAI)		UL 746A
0.06 in	PLC 3	
0.12 in	PLC 1	
Hot-wire Ignition (HWI)		UL 746A
0.06 in	PLC 3	
0.12 in	PLC 0	
Flammability	Nominal Value	Unit
Flame Rating		UL 94
0.06 in	V-0	
0.12 in	5VA	

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	158 to 176	°F
Drying Time	3.0 to 4.0	hr
Suggested Max Moisture	0.020	%
Rear Temperature	450 to 500	°F
Middle Temperature	450 to 500	°F
Front Temperature	450 to 500	°F
Nozzle Temperature	440 to 480	°F
Mold Temperature	110 to 150	°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.

