AuroraGuard™ ENV15-NHFR-7000

Aurora Material Solutions, LLC - *Polycarbonate + ABS*

General Information

Product Description

AuroraGuard™ ENV15-NHFR-7000 is a,Non-Chlorinated/Non-Brominated Flame Retardant, Black Polycarbonate/Acrylonitrile Acrylic Styrene (PC/ABS) Injection Molding Grade.

Formerly known as ENVIROPLAS®

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	
Agency Ratings	• EC 1907/2006 (REACH)		
RoHS Compliance	• RoHS Compliant		
UL File Number	• E.192776		
Appearance	• Black		
Processing Method	• Injection Molding		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.20		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	**Nominal Value**	**Unit**	**Test Method**
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	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (73°F)	10	ft·lb/in	ASTM D256
Gardner Impact (73°F)	400	in·lb	ASTM D5420
Thermal	**Nominal Value**	**Unit**	**Test Method**
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	**Nominal Value**	**Unit**	**Test Method**
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	Test Method
Flame Rating			UL 94
0.06 in	V-0		
0.12 in	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.