

AuroraGuard™ 152-18020

Aurora Material Solutions, LLC - Polycarbonate + ABS

General Information

Product Description

AuroraGuard™ 152-18020 is a Non-Chlorinated/Non-Brominated Flame Retardant, Natural Polycarbonate / Acrylonitrile Butadiene Styrene (PC/ABS) Injection Molding Grade.

Formerly branded as ENVIROLOY®

General

Material Status	• Commercial: Active
Availability	• 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	• Electrical/Electronic Applications
Agency Ratings	• EC 1907/2006 (REACH)
RoHS Compliance	• RoHS Compliant
UL File Number	• E.192776
Appearance	• Natural Color
Processing Method	• Injection Molding

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.19		ASTM D792
Melt Mass-Flow Rate (MFR) (240°C/5.0 kg)	16	g/10 min	ASTM D1238
Molding Shrinkage - Flow (0.125 in)	5.0E-3 to 8.0E-3	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)	11	ft·lb/in	ASTM D256
Gardner Impact ² (73°F)	400	in·lb	ASTM D5420
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	180	°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
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	449 to 489	°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.

² No Failure Energy

