AuroraGuard™ ENV15-78013

Aurora Material Solutions, LLC - *Polycarbonate + ABS*

General Information

Product Description

AuroraGuard™ ENV15-78013 is a Black, Polycarbonate/Acrylonitrile Butadiene Styrene (PC/ABS) Injection Molding Grade.

Formerly branded as ENVIROLOY®

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Hydrolytically Stable		
Uses	• Automotive Interior Parts	• Electrical Parts	• Electrical/Electronic Applications
RoHS Compliance	• RoHS Compliant		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		
Resin ID (ISO 1043)	• PC/ABS		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.13		ASTM D792
Melt Mass-Flow Rate (MFR) (260°C/5.0 kg)	27	g/10 min	ASTM D1238
Molding Shrinkage - Flow	4.0E-3 to 7.0E-3	in/in	ASTM D955
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	290000	psi	ASTM D638
Tensile Strength (Yield)	7700	psi	ASTM D638
Tensile Elongation (Break)	80	%	ASTM D638
Flexural Modulus	306000	psi	ASTM D790
Flexural Strength	11000	psi	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			ASTM D256
-22°F	6.0	ft·lb/in	
73°F	12	ft·lb/in	
Gardner Impact [2]	440	in·lb	ASTM D3029
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	259	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed)	225	°F	ASTM D648
Vicat Softening Temperature	258	°F	ASTM D1525 [3]
Flammability	**Nominal Value**	**Unit**	**Test Method**
Burning Rate (0.125 in, Self-Extinguishing)	0.0	in/min	ISO 3795
Flame Rating (0.06 in)	HB		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	185 to 225	°F
Drying Time	3.0 to 4.0	hr
Suggested Max Moisture	0.020	%
Rear Temperature	460 to 510	°F
Middle Temperature	480 to 550	°F

Front Temperature	480 to 550	°F
Nozzle Temperature	480 to 520	°F
Mold Temperature	150 to 190	°F
Injection Rate	Moderate-Fast	
Back Pressure	50.0 to 100	psi
Screw Speed	40 to 70	rpm

Notes

[1] Typical properties: these are not to be construed as specifications.

[2] No Failure Energy

[3] Rate B (120°C/h), Loading 2 (50 N)