

AuroraGuard™ PC/ABS HRC

Aurora Material Solutions, LLC - Polycarbonate + ABS

General Information

Product Description

High-heat injection molding grade of Polycarbonate and Acrylonitrile Butadiene Styrene (PC/ABS) alloy. Black color. Offers high flow with hydrolytic stability, ease of processing, and mold release. Contains post-industrial recycle (PIR.)

General

Material Status	• Commercial: Active
Availability	• Europe • Latin America • North America
Recycled Content	• Post-Industrial (PIR)/Pre-Consumer
Features	• Anti-fogging • Heat Stabilized • Hydrolytically Stable • Good Processability • High Flow
Uses	• Automotive Interior Parts
RoHS Compliance	• RoHS Compliant
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• PC/ABS

Properties ¹

	Nominal Value	Unit	Test Method
Physical			
Density / Specific Gravity	1.14		ASTM D792
Density	1.14	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (260°C/5.0 kg)	25	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (260°C/5.0 kg)	25	g/10 min	ISO 1133
Molding Shrinkage - Flow (0.125 in)	4.0E-3 to 6.0E-3	in/in	ASTM D955
Molding Shrinkage - Flow (0.125 in)	0.40 to 0.60	%	ISO 294-4
Mechanical			
Tensile Strength (Yield)	7900	psi	ASTM D638
Tensile Stress (Yield)	7660	psi	ISO 527-2
Tensile Elongation (Break)	110	%	ASTM D638
Tensile Strain (Break)	50	%	ISO 527-2
Flexural Modulus	335000	psi	ASTM D790
Flexural Modulus	336000	psi	ISO 178
Flexural Strength	12800	psi	ASTM D790
Flexural Stress	12100	psi	ISO 178
Impact			
Charpy Notched Impact Strength			ISO 179
-22°F, 0.157 in	11	ft·lb/in ²	
73°F, 0.157 in	32	ft·lb/in ²	
Notched Izod Impact			ASTM D256
-22°F, 0.125 in	4.0	ft·lb/in	
73°F, 0.125 in	12	ft·lb/in	
Gardner Impact	440	in·lb	ASTM D5420
Thermal			
Deflection Temperature Under Load (66 psi, Unannealed, 0.125 in)	248	°F	ASTM D648
Deflection Temperature Under Load (66 psi, Unannealed, 0.157 in)	250	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed, 0.125 in)	220	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed, 0.157 in)	224	°F	ISO 75-2/A
Vicat Softening Temperature	258	°F	ASTM D1525 ²



Vicat Softening Temperature	257 °F	ISO 306/B120
Flammability	Nominal Value	Unit
Burning Rate (0.125 in, Self-Extinguishing)	0.0 in/min	ISO 3795
Flame Rating (0.06 in)	HB	UL 94
Additional Information	Nominal Value	Unit
Fogging ³	100 %	SAE J1756

Processing Information

	Nominal Value	Unit
Injection		
Drying Temperature	215	°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	140 to 180	°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 Rate B (120°C/h), Loading 2 (50 N)

³ Clear and Dry

