

AuroraTec™ ENV39-18000

Aurora Material Solutions, LLC - Polycarbonate + PBT

General Information
Product Description

AuroraTec™ ENV39-18000 is an Impact-Modified, UV Stabilized, Natural Polycarbonate / Polybutylene Terephthalate (PC/PBT) Injection Molding Grade, Provides Outstanding Low Temperature Impact Resistance.

Formerly branded as ENVIRON®.

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Latin America	• North America
Features	• Chemical Resistant	• Good Mold Release	• Low Temperature Impact Resistance
Uses	• Construction Applications	• Lawn & Garden Equipment	• Outdoor Applications
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.20		ASTM D792
Melt Mass-Flow Rate (MFR)	22	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.014 to 0.018	in/in	ASTM D955
Molding Shrinkage - Across Flow	0.016 to 0.020	in/in	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	278000	psi	ASTM D638
Tensile Strength (Yield)	6400	psi	ASTM D638
Tensile Elongation (Break)	> 200	%	ASTM D638
Flexural Modulus	257000	psi	ASTM D790
Flexural Strength	9700	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-22°F	14	ft·lb/in	
73°F	16	ft·lb/in	
Gardner Impact ² (73°F, 0.125 in)	480	in·lb	ASTM D3029
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	140	°F	ASTM D648
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)	HB		Internal Method

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	185 to 225	°F
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.020	%
Rear Temperature	440 to 480	°F
Middle Temperature	460 to 500	°F
Front Temperature	480 to 520	°F
Nozzle Temperature	460 to 500	°F
Mold Temperature	140 to 180	°F



Injection Rate	Moderate
Back Pressure	50.0 to 200 psi
Screw Speed	50 to 80 rpm

Notes

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

² No Failure Energy

