

AuroraGuard™ ENV48-19097

Aurora Material Solutions, LLC - Polysulfone

General Information

Product Description

AuroraGuard™ ENV48-19097 is an Unfilled, Transparent, Natural Polysulfone (PSU) Injection Molding Grade.

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific • Europe	• Latin America • North America	
Features	• Combustion Resistant • Good Dimensional Stability	• Good ESCR (Stress Crack Resist.) • Good Thermal Stability	• High Heat Resistance • Hydrolysis Resistant
Uses	• Appliance Components • Batteries	• Electrical Parts • Food Service Applications	
Agency Ratings	• FDA 21 CFR 177.1655		
RoHS Compliance	• RoHS Compliant		
Appearance	• Clear/Transparent		
Forms	• Pellets		
Processing Method	• Injection Molding		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.23		ASTM D792
Melt Mass-Flow Rate (MFR) (337°C/6.6 kg)	25	g/10 min	ASTM D1238
Molding Shrinkage - Flow	6.0E-3 to 9.0E-3	in/in	ASTM D955
Water Absorption (Equilibrium)	0.30	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Break)	11000	psi	ASTM D638
Flexural Modulus	407000	psi	ASTM D790
Flexural Strength	16100	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F)	1.1	ft·lb/in	ASTM D256
Gardner Impact (73°F)	440	in·lb	ASTM D5420
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	340	°F	ASTM D648
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.25 in)	V-0		Internal Method

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	280	°F
Drying Time	4.0 to 6.0	hr
Suggested Max Moisture	0.020	%
Rear Temperature	625 to 680	°F
Middle Temperature	625 to 680	°F
Front Temperature	625 to 680	°F
Nozzle Temperature	625 to 680	°F
Mold Temperature	250 to 310	°F
Injection Rate	Moderate	
Back Pressure	50.0 to 100	psi
Screw Speed	40 to 70	rpm

