

AuroraTec™ ENV74-11049

Aurora Material Solutions, LLC - *Engineering Thermoplastic Polyurethane*

General Information

Product Description

AuroraTec™ ENV74-11049 is a 20% fiberglass reinforced, natural Thermoplastic Polyurethane (TPU) / Polycarbonate (PC) blend, injection molding grade.

Formerly branded as ENVIROPUR™

General

Material Status	• Commercial: Active
Availability	• Asia Pacific • Latin America • Europe • North America
Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight
Additive	• Mold Release
Features	• Abrasion Resistant • Good Mold Release • Chemical Resistant • Good Toughness
Uses	• Military/Defense 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	1.32		ASTM D792
Molding Shrinkage - Flow	1.0E-3 to 3.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.15	%	ASTM D570
Ash Content	20	%	ASTM D5630
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Break)	12300	psi	ASTM D638
Tensile Elongation (Break)	3.0	%	ASTM D638
Flexural Modulus - 1% Secant	706000	psi	ASTM D790
Flexural Strength	18000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F)	1.3	ft-lb/in	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	190	°F	ASTM D648

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	230 to 250	°F
Drying Time	4.0 to 6.0	hr
Rear Temperature	430 to 470	°F
Middle Temperature	430 to 470	°F
Front Temperature	430 to 470	°F
Nozzle Temperature	390 to 410	°F
Mold Temperature	110 to 150	°F
Back Pressure	< 800	psi
Screw Speed	40 to 80	rpm

