

AuroraTec™ ENV72-NC900

Aurora Material Solutions, LLC - Polyphenylsulfone

General Information
Product Description

Extrusion, Injection Molding, Thermoforming Grade, Transparent-Slight Amber Tint, Excellent Impact Resistance, Exceptional Long Term Hydrolytic Stability and Resistance to Environmental Stress Cracking, Better Chemical Resistance Than PSU or PEI, Inherently Flame Retardant, Maximum Temperature of Use 375 °F, Withstands Repeated Steam Sterilizations, NC900 = To Be Assigned 5 Digit Number Indicating Natural, Black, or Custom Color. The ENV72 Series Products Are Available With Mold Release and/or UV Stabilizer.

Formerly known as ENVIROPUR ENV72-NC900

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin America	
Additive	• Mold Release		
	• UV Stabilizer		
Features	• Chemical Resistant	• High Heat Resistance	• Steam Sterilizable
	• Flame Retardant	• High Impact Resistance	
	• High ESCR (Stress Crack Resist.)	• Hydrolytically Stable	
Uses	• Medical/Healthcare Applications		
Appearance	• Transparent - Slight Yellow		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	• Thermoforming

Properties¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.29		ASTM D792
Melt Mass-Flow Rate (MFR) (365°C/5.0 kg)	16	g/10 min	ASTM D1238
Molding Shrinkage - Flow	8.0E-3 to 0.010	in/in	ASTM D955
Water Absorption (Equilibrium)	0.35	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	10000	psi	ASTM D638
Tensile Elongation (Break)	7.5	%	ASTM D638
Flexural Modulus	352000	psi	ASTM D790
Flexural Strength	13100	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F)	13	ft-lb/in	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	403	°F	ASTM D648
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.031 in)	V-0		Internal Method

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	300	°F
Drying Time	3.0 to 6.0	hr
Suggested Max Moisture	0.050	%
Rear Temperature	680 to 710	°F
Middle Temperature	680 to 710	°F
Front Temperature	680 to 710	°F
Nozzle Temperature	680 to 710	°F
Mold Temperature	280 to 320	°F



Injection Pressure	15000 to 22000 psi
Injection Rate	Slow-Moderate
Back Pressure	100 to 300 psi
Screw Speed	50 to 100 rpm

Notes

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

