

InStruc® PPSUCF10

Americhem - Polyphenylsulfone

General Information

Product Description

InStruc PPSUCF10 is a 10% carbon fiber reinforced PPSU. InStruc PPSUCF10 offers high operating temperatures, good chemical compatibility, excellent hydrolysis resistance, good dimensional stability, and favorable mechanical properties.

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Filler / Reinforcement	• Carbon Fiber, 10% Filler by Weight
Features	• Filled • Good Dimensional Stability • High Stiffness • High Strength
Uses	• Aerospace Applications • Connectors • Consumer Applications • Electrical/Electronic Applications • Engineering Parts • Housings • Industrial Applications • Industrial Parts • Metal Replacement • Military/Defense Applications • Oil/Gas Applications • Outdoor Applications • Semiconductor Applications
Forms	• Pellets
Processing Method	• Injection Molding

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.33		ASTM D792
Molding Shrinkage - Flow (0.125 in)	3.0E-3 to 5.0E-3	in/in	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	700000	psi	ASTM D638
Tensile Strength	15000	psi	ASTM D638
Tensile Elongation (Yield)	2.0 to 4.0	%	ASTM D638
Flexural Modulus	800000	psi	ASTM D790
Flexural Strength (Yield)	22000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	1.3 to 1.5	ft·lb/in	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	420	°F	ASTM D648
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+5 to 1.0E+7	ohms	ASTM D257

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	300	°F
Drying Time	2.0 to 4.0	hr
Processing (Melt) Temp	650 to 730	°F
Mold Temperature	280 to 325	°F
Back Pressure	50.0 to 100	psi

