

InStruc® PPSUCF5
Americhem - Polyphenylsulfone
General Information
Product Description

InStruc PPSUCF5 is a 5% carbon fiber reinforced PPSU..InStruc PPSUCF5 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, 5.0% 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	1.32		ASTM D792
Molding Shrinkage - Flow (0.125 in)	4.0E-3 to 6.0E-3	in/in	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	500000	psi	ASTM D638
Tensile Strength	12000	psi	ASTM D638
Tensile Elongation (Yield)	3.0 to 5.0	%	ASTM D638
Flexural Modulus	510000	psi	ASTM D790
Flexural Strength (Yield)	16500	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)	412	°F	ASTM D648

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

