

## InLube® PPACF30TF10SI2MD

Americhem - Polyphthalamide

### General Information

#### Product Description

InLube® PPACF30TF10SI2 is a 30% carbon fiber reinforced, 10% PTFE, and 2% silicone lubricated polyphthalamide, formulated for Healthcare applications. This product offers great strength, as well as lubricating properties.

#### General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Carbon Fiber, 30% Filler by Weight		
Additive	• PTFE Lubricant: 10%	• Silicone Lubricant: 2%	
Features	• Chemical Resistant • Filled • Good Dimensional Stability	• Good Mold Release • High Stiffness • High Strength	• Low Friction • Lubricated • Wear Resistant
Uses	• Connectors • Electrical/Electronic Applications	• Engineering Parts • Medical/Healthcare Applications	• Metal Replacement • Surgical Instruments
Forms	• Pellets		
Processing Method	• Injection Molding		

### Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.40		ASTM D792
Molding Shrinkage - Flow	5.0E-4 to 2.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.20	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	3.60E+6	psi	ASTM D638
Tensile Strength	36000	psi	ASTM D638
Tensile Elongation (Yield)	1.0 to 3.0	%	ASTM D638
Flexural Modulus	3.20E+6	psi	ASTM D790
Flexural Strength	50000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (0.125 in)	1.4	ft·lb/in	ASTM D256
Unnotched Izod Impact (0.125 in)	13	ft·lb/in	ASTM D4812
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	530	°F	ASTM D648

### Processing Information

Injection	Nominal Value	Unit
Drying Temperature	275	°F
Drying Time	4.0	hr
Processing (Melt) Temp	625	°F
Mold Temperature	275 to 325	°F
Back Pressure	50.0 to 100	psi
Screw Speed	40 to 70	rpm
Vent Depth	5.0E-4 to 1.0E-3	in

