



Fluoroloy® C

Technical Specs

Property	Units	ASTM	MD*	CD*
Mechanical				
Tensile strength (ultimate)	PSI	D 1457	1800	2200
Tensile elongation	%	D 1457	65	65
Compressive strength @ 0.2% yield stress	PSI	D 695	1600	1300
Compressive modulus	PSI	D 695	120,000	135,000
Flexural strength @ 0.2% yield stress	PSI	D 740	NA	1100
Flexural modulus	PSI	D 790	NA	192,000
Hardness (Shore D)		D 1706	65	68
Physical				
Coefficient of thermal expansion @	78° -200°F	D 696	5.6	4.0
	78° -300°F		6.0	4.3
	78° -400°F		6.7	4.9
	78° -500°F		8.1	5.7
Thermal conductivity	BTU-in / hr.sq.ft°F	Cenco Finch	4.39	
Specific gravity		D 1457	3.76	

* Forms fabricated from homogenous material composition utilizing reinforcing aggregate bound by PTFE exhibit the phenomenon of heterogeneous property planes (e.g. maximum unit planes parallel to the direction of compaction in contrast to the planes perpendicular to the direction of compaction). Since the types, sizes and shapes of reinforcing aggregate largely effect the degree of orientation in a fabricated form the typical properties for both planes are listed.

In all forms of round bar the MD direction is in the longitudinal axis of the bar. The CD direction is in the transverse axis. In all forms of sheet and plate the MD direction is in the thickness plane. The CD direction is in the plane perpendicular to the thickness.

Design Guide

	MD	CD
Compressive creep (cold flow) deformation at 78°F, 2000 PSI, 24 hours total deflection under load.....	4.1%	3.5%
Permanent deformation after removal of load.....	1.9%	1.6%
Deformation at 500°F, 600 PSI, 24 hours total deflection under PHYSICAL load.....	11.5%	9.2%
Permanent deformation after removal of load.....	8.3%	4.6%
"Limiting PV" @10 ft/min.	15,000	
@100 ft/min.	18,000	
@1000 ft/min.	22,000	
Wear factor K x 10 ⁻¹⁰ (in. ³ - min.) / (lb./ft-hr)	4	
Coefficient of friction, 333 PSI		
Static.....	0.12	
Dynamic @ 150 FPM.....	0.20	

NOTES:

(1) LIMITING PV is defined as the product of the load and velocity capability of a material, bypassing consideration of wear.

Where PV = $\frac{\text{load in pounds}}{\text{projected bearing area in sq. in.}} \times \text{velocity in ft/min.}$

(2) Wear at a nonlubricated bearing surface is a function of the load supported and the distance traveled. Thus, wear rate = R/T = KVP; where R = radial wear, inches; P = pressure, lbs/sq. in.; V = velocity ft/min.; T = time, hrs; K = wear factor

Product Description

Fluoroloy C is tailor-made for high load-speed bearing service in dry environments. Its combination of low frictional coefficient, high thermal conductivity, dimensional stability, hardness, resistance to wear and mechanical strength impart the best over-all characteristics for rubbing contact applications.

We do not recommend **Fluoroloy C** for most electronic requirements, however. Similarly, It has certain known limitations in harsh chemical service, such as oxidizing acids and salts, and strong alkalis. **Fluoroloy C** is a proprietary homogenous material based on Teflon TFE resins.

Fluoroloy is a registered trademark of Saint-Gobain Performance Plastics.

We're ready to put our engineering expertise to work for you from prototype to production.

Engineering | Custom Fabrication | Manufacturing



CJ Composite

- Self-Lubricating
- Low weight | High Strength
- Chemical Resistance
- Direct replacement for Bronze



Ultracomp[®]

- Self-Lubricating
- High Load | Low Speed
- High Compressive Strength
- Vibration & Impact Resistance



TriSteel[™]

- Self-Lubricating
- High Load | High Speed
- Metal Backed Bearing System
- 100% Lead Free



Rulon[®]

- Self-Lubricating
- Low weight | High Strength
- Low Coefficient of Friction
- Chemically Resistant



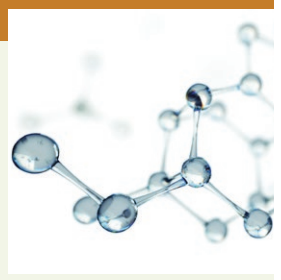
Meldin[®]

- High Performance Materials
- High Temp Dimensional Stability
- Chemical Resistance
- Withstands Thermal Shocks



Enhanced Materials

- Plasma Surface Treatment
- Filtration Membranes
- Specialized Primers & Coatings
- Material ID & Selection



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