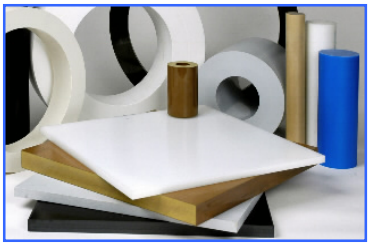
E. Jordan Brookes
Engineered Metals and Plastics
*Quality Plastics Since 1936*



# PFA

## Characteristics

* Chemical Resistance at Elevated Temperatures
* Excellent Flexural Life
* Crack and Stress Resistant
* High Melt Temperature
* Rigid

## Description

**PFA** is an ideal plastic to use in caustic chemical environments at elevated temperatures. It is resistant to mechanical stress showing minimal signs of cracking and high level of flex life. A low coefficient of friction and a high resistance to creep at service temperatures of 500 degree F places this material into a premium classification amongst its peers.

## Forms Available

| | |
|---|---|
| ROD | .125" to 2.500 " diameter |
| TUBE | Custom produced as requested |
| PLATE | .250" to 1.500" thick |
| COLOR | White |

## Typical Property Values

| | | PFA |
|---|---|---|
| **MECHANICAL @ 73ºF** | | |
| Density | | 0.08 |
| Tensile Strength | psi | 3,600 |
| Tensile Modulus of Elasticity | psi | |
| Tensile Elongation ( at Break ) | % | 300 |
| Flexural Strength | psi | |
| Flexural Modulus of Elasticity | psi | 85,000 |
| Shear Strength | psi | |
| Compressive Strength, 10% Deformation | psi | |
| Compressive Modulus of Elasticity | psi | |
| Shore Hardness | D Scale | 60 |
| Izod Impact Strength, Notched | ft-lbs/in. of notch | |
| Coefficient of Friction, Dynamic ( Dry vs. Steel ) | | |
| Limiting PV ( 4 :1 Safety Factor Applied ) | $ft.lbs/in.^2$ min | |
| Wear Factor | $in^3$-min/ft.lbs. hr. | |
| Water Absorption 24 hrs | % by wt. | < 0.03 |
| **THERMAL** | | |
| Coefficient of Linear Expansion ( -40ºF to 300ºF ) | in./in./ºF | $3.8 \times 10^{-5}$ |
| Heat Deflection Temperature @264 psi | ºF | |
| Melting Point ( Crystalline ) | ºF | 582 |
| Continuous Service Temperature in Air | ºF | 500 |
| Thermal Conductivity | ºF | |
| **ELECTRICAL** | | |
| Dielectric Strength, Short Term | Volts/mil | |
| Surface Resistivity | Ohms/Sq. | |
| Dielectric Constant | 1 MHz | 2.10 |
| Dissipation Factor | 1 MHz | 0.00010 |

( Properties listed above are provided for reference only, they should not be used for design specifications or quality control )