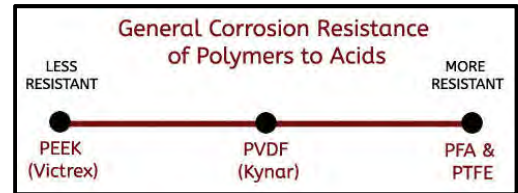


PFA polymer fasteners offer the best all-around corrosion resistant at high temperatures compared to other engineered polymers like PEEK or PVDF. They are virtually inert to most organics, acids, bases, mixed chemicals and hydrofluoric acid. Bio-inert, PFA screws will not contaminate or leach into pharmaceutical and food processes or products. PFA has a usable temperature limit of 500°F / 260°C. Like PTFE the trade off for excellent high temperature corrosion resistance is low strength.



Properties & Data

| Property | ASTM or UL Test | Teflon® PFA |
|---|-----------------------------------|--------------------|
| PHYSICAL | | |
| Density (lb/in³) (g/cm³) | D792 | 0.077 (2.14) |
| Water Absorption, 24 hrs (%) | D570 | <0.03 |
| MECHANICAL | | |
| Strength/Weight Ratio | Tensile Strength / Density (g/cc) | 1700 |
| Tensile Strength (psi) | D638 | 3,600 |
| Tensile Modulus (psi) | D638 | 80,000 |
| Tensile Elongation at Break (%) | D638 | 330 |
| Flexural Strength (psi) | D790 | No Break |
| Flexural Modulus (psi) | D790 | 85,000 |
| Hardness, Rockwell, R/M Scale | D785 | R55 |
| IZOD Impact Notched (ft-lb/in) | D256 | No Break |
| THERMAL | | |
| Coefficient of Linear Thermal Expansion (x 10-5 in./in./°F) | D696 | 7.8 |
| Heat Deflection Temp (°F / °C) at 264 psi | D648 | 163 / 73 |
| Melting Temp (°F / °C) | D3418 | 575 / 302 |
| Max Operating Temp (°F / °C) | - | 500 / 260 |
| Thermal Conductivity (BTU-in/ft²-hr-°F) | C177 | 1.4 |
| Flammability Rating | UL94 | V-O |
| ELECTRICAL | | |
| Dielectric Strength (V/mil) short time, 1/8" thick | D149 | 6500 |
| Dielectric Constant at 1 MHz | D150 | 2.03 |
| Dissipation Factor at 1 MHz | D150 | 0.0001 |
| Volume Resistivity (ohm-cm) at 50% RH | D257 | > 10 ¹⁸ |

Key Benefits

- Excellent resistance to organics, acids and bases
- Excellent electrical insulator
- Ideal for pharmaceutical and food products and process due to their bio-inert attributes

PFA - Tensile Data

| Temperature (°F) | Ultimate Tensile (ksi) | Yield Strength at 0.2% Offset (ksi) | Elongation % |
|------------------|------------------------|-------------------------------------|--------------|
| Room Temp. | 3.6 | 2.0 | 300 |
| 480 | 2.0 | - | 480 |