

Datasheet PFA Tubing

PFA is a melt processable fluoropolymer resin with a very high purity. Its properties are those of PTFE and include resistance to practically all chemicals, broad temperature range, resistance to weathering, low friction and excellent electrical insulation properties. More specifically, PFA is a fluorocarbon where the carbon atoms are fully bonded to fluorine atoms. The carbon-fluorine single bond is among the strongest known and results in PFA being virtually chemically inert and nonwetttable by fluids such as water. General plastics and elastomers, in contrast to metals, absorb varying quantities of materials they contact, especially organic liquids. Absorptives in PFA are unusually low and a chemical reaction between the resin and other substances is rare. Closely related to absorption is permeation. PFA displays the highest resistance to creep of all fluoropolymer resins except PTFE, which is important in the design of fluid handling systems.

General

Upper service temperature 260 °C
Chemical resistance excellent
Specific gravity 2.15
Melting point 305 °C

Electrical

Dielectric constant 2.1
Dielectric dissipation factor 0.0002
Dielectric strength > 2000 Volt / mil

Mechanical

Tensile strength 4000 psi
Elongation 300 %
Compressive strength 2200 psi
Flexural Modulus 100 000 psi Hardness D-60

Enviromental

Water absorption < 0.03 %
Water resistance excellent
Oxygen index >95 %
Flammability UL 94 V-0

