

## Perfluoroalcoxy (PFA) Coatings



PFA (perfluoroalcoxy) is used extensively in the Chemical and Process Industry (CPI) due to its virtually universal chemical resistance even at high temperatures. PFA coating is virtually inert to chemicals even at elevated temperatures and pressures. They are not attacked by inorganic basis, strong minerals acids and inorganic oxidizing agents commonly used in the chemical industry. Moreover, they are not subject to chemical attack and will not demonstrate particle generation over time. PFA (perfluoroalkoxy) non-stick coating melt and flow during baking to provide non-porous films. PFA offers the additional benefits of higher continuous use temperature 260°C/500°F, film thickness up to 40 mils, and greater toughness than PTFE or FEP. This combination of properties makes PFA an excellent choice for a wide variety of uses

Specific applications including protective coatings for pumps, valves, pipes scrubbing towers, reactors and heat exchangers.

PFA offers high melt strength, stability at high processing temperatures, excellent crack and stress resistance, a low coefficient of friction, and more than 10 times the Flex life of FEP.

It has high resistance to creep and retention of properties after service at 500°F (260°C), with useful properties at -320°F (-95°C).

PHYSICAL	
Density (g/cm <sup>3</sup> )	2.15
Water Absorption, 24 hrs (%)	< 0.03
MECHANICAL	
Tensile Strength (psi)	3,600
Tensile Elongation at Break (%)	300
Flexural Strength (psi)	No break
Folding Endurance (cycles)	5-500 x 10 <sup>3</sup>
Flexural Modulus (psi)	85,000
Hardness, Shore D	D60
IZOD Notched Impact (ft-lb/in)	--
THERMAL	
Melting Temp (°F / °C)	582 / 305
Max Operating Temp (°F / °C)	500 / 260
Flammability Rating	V-0
ELECTRICAL	
Dielectric Constant at 1 MHz	2.1
Dissipation Factor at 1 MHz	< 0.0001
Arc Resistance (sec)	< 180
Volume Resistivity (ohm-cm)at 50% RH	> 10 <sup>18</sup>