

# Fluoropolymer Coatings

Fluoropolymer coatings are combinations of fluoropolymer lubricants and resin binders that offer extraordinarily low coefficients of friction, excellent corrosion protection and good chemical resistance. Chem Processing, Inc. supplies several brands of fluoropolymer coatings, including Teflon®, Xylan®, Kynar®, and Maxcoat®. Each of these brands represents a family of coatings that are designed to address various engineering needs. Coatings are chosen based on required tolerances, expected load, temperature, environment and other significant factors. Different colors are also available for aesthetics and identification purposes.

Besides the characteristics listed above, fluoropolymer coatings can also provide electrical resistivity, anti-galling properties, abrasion resistance and low surface tension (wet-ability). Chem Processing's technical experts can work with you to choose the best fluoropolymer coating for your needs and conditions.

## Engineering Characteristics\* of Fluoropolymer Coatings:

- Coating thickness range of 0.0002 to 0.0007 in.
- Temperature range: -200 to 500°F
- Chemically inert
- Flame retardant
- Extremely low coefficient of friction
- Hydrophobic surface
- Lower risk of hydrogen embrittlement than electroplated finishes
- Electrically resistive



## Typical Fluoropolymer Coating Applications:

- **Aerospace:** replacement for cadmium in corrosive environments; high use surfaces in cabin interiors; actuators, gears, structural elements, bearings, wheels, landing gear components, fan blades
- **Automotive:** pistons, cylinder blocks, sliding bearings, cylinder liners, exhaust nozzles, valve trains, suspension elements, fuel pumps, gearboxes, engine block covers, structural elements, wheels, axles, spindles, swivels, slides; molds
- **Medical:** medical mixers, life support equipment, bone prostheses, turbo-molecular pumps
- **Oil & Gas/Chemical Production:** valves, pumps, hydraulic and pneumatic systems, submerged oil pumps; impellers; mixing tanks; centrifuges; exhaust ducts
- **Food Processing:** chemically resistant and cleanable surfaces; conveyors
- **Heavy Equipment:** longer service life of critical components
- **Cookware:** non-stick surfaces on pots and pans

\* Characteristics vary by brand and product

*All processes comply with industry specifications including ASTM, SAE, MIL, etc., as applicable for the particular process involved and are performed under ISO 9001:2000/AS9100B standards. Specific company approvals may also apply.*



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