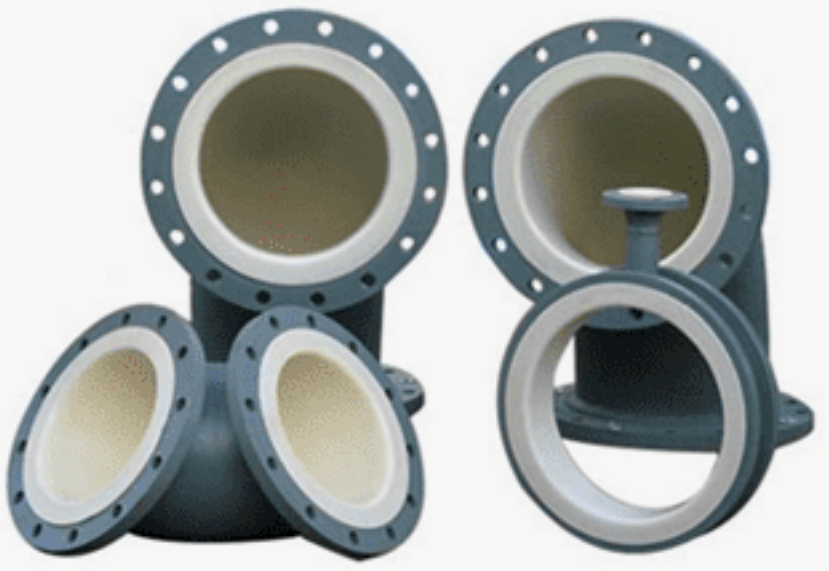
UNDERSTANDING FLUOROPOLYMERS

Along with their superior chemical resistance, fluoropolymers also provide thermal stability, high purity, non-bonding surfaces, and thermal and electrical insulation. Combining the above with metal and rigid structural materials, fluoropolymers provide a cost-effective alternative to glass-lined and exotic metal construction.



THE TOP ADVANTAGES OF **FLUOROPOLYMER COMPONENTS**

EXCELLENT CHEMICAL RESISTANCE

As pure chemical composites, fluoropolymers have few leachable or extractable components. This helps keep the material stable under exposure to heat and allows it to resist damage and reactions from most chemicals.

ABRASION RESISTANCE

A variety of available fluoropolymers feature exceedingly high resistance to abrasion, ensuring a long and effective service life even in the presence of moving components or other abrasive factors.

HIGH PURITY

Ultra-high purity is critical to quality for advanced electronic producers. Several high-purity fluoropolymers are available for these and other applications where purity is of utmost importance.

ANTI-FRICTION

The fluoropolymer family generally possesses an exceptionally low coefficient of friction and high lubricity. The low coefficient of friction also reduces fouling, which improves productivity by reducing maintenance requirements and increasing efficiency.

MATERIAL OPTIONS

PTFE is one of the most popular fluoropolymers used across a variety of industries. Additional materials are available, each with its own unique properties and advantages. They include PTFE-M, PFA, MFA, FEP, ETFE, XLPE, HDPE, and more.

APPLICATIONS

Fluoropolymers can protect, line, and coat parts in a wide variety of process applications. Here are some examples:

CHEMICAL AND PETROCHEMICAL PROCESSING

As a relatively inert substance, fluoropolymers won't leach into process flows in chemical and petrochemical applications. With multiple high-purity options available, fluoropolymer components provide a cost-effective and ideal choice for a variety of chemical processing applications, including:

1. As an alternative to glass linings in corrosive piping, chemical reactor, and acid storage applications.
2. Encapsulating steel to provide strength and reliable corrosion resistance for dip tubes, trays, and other process internals and specialty components.
3. Lining vessels and heat/mass transfer components.

ELECTRONICS AND SEMICONDUCTOR MANUFACTURING

All materials used in the fabrication of electronics and semiconductors must be exceptionally pure to ensure that these delicate components will function properly. Electronics and semiconductor manufacturers use fluoropolymers for:

1. Liners ensure high purity, non-stick, anti-static, and corrosion resistance.
2. Seamless linings produced by the rotolining process provide the reliability critical to this high purity process environment.

CG Thermal provides high quality fluoropolymer linings, coatings, and surfaces for process components that will face extreme environmental conditions. Working together with our technology partners, we will provide the ideal material and application technique to ensure the reliability you require.

CGThermal

Contact our team today to learn more about our capabilities and custom process technology solutions.

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