Let the innovator in fluoropolymer lining and coating technology solve your corrosion problems.

- Chemical
- Semiconductor
- Pulp & Paper
- Pharmaceutical
- Food
- Metals
- Electric Power
- Mining
- Transportation
For 50 years, Electro Chemical has been at the vanguard of the war on industrial corrosion. In the early 1980’s, we pioneered the first commercial fluoropolymer linings for corrosion control systems, and we maintain our industry leadership position today. Internationally known for the reliability and durability of our systems, our commitment to continuous innovation in the use of leading technologies provides us the edge in solving our customers’ most demanding corrosion problems.

Today, we offer a complete line of fluoropolymer lining and coating systems for pressure vessels, tanks, distribution equipment and internal components where the corrosive environment is extremely harsh or the purity requirement is extremely high. Our engineers are always available to answer technical questions, to aid in materials selection, and to assist in selecting the most cost-effective system. Our experienced field teams can provide turnkey solutions at your site when the project is too large or time is too short to complete at one of our production facilities.

Selecting the right materials for a corrosion control system is often a daunting task. Value in Use operating cost factors can be several times the initial capital cost if compatible materials are not initially selected. Factors impacting these costs include:

- Replacement Frequency
- Downtime
- Product Loss
- Suitability—Varied Uses
- Reliability—Process Upsets
- Cleaning
- Maintenance

Under severe conditions, especially when acids, alkalis, oxidizers, or solvents are present, fluoropolymer lining systems provide the lowest Value in Use cost. They provide much higher durability and strength than thermosets, rubber, elastomers, fiberglass (FRP), or thermoplastic lined systems, and have a much lower capital cost than glass lined or high nickel alloy vessels.

The Applications Laboratory at Electro Chemical can simulate your exact operating conditions, simultaneously testing various lining materials to determine their suitability for your specific application. Proprietary software programs calculate thermal and mechanical stresses across multiple lining systems to ensure durability. The engineering staff will draw on their experience with corrosive environments similar to yours to assist in selecting the best materials for a reliable system.

**HELPING YOU MAKE THE RIGHT DECISION**

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<table>
<thead>
<tr>
<th>Operating Expenses</th>
<th>Capital Expenses</th>
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<tbody>
<tr>
<td>Thermosets</td>
<td>Stainless Steel</td>
</tr>
<tr>
<td>Rubber</td>
<td>Glass/Steel</td>
</tr>
<tr>
<td>Elastomers</td>
<td>Nickel Alloy</td>
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<tr>
<td>Fiberglass (FRP)</td>
<td>Titanium</td>
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<tr>
<td>Thermoplastics</td>
<td>Tantalum</td>
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</tbody>
</table>

**Fluoropolymer Lining Systems**

Provide Lowest Life-Cycle Cost when:
- Strong Acid, Alkali, Oxidizer, or Solvent
- Temperature Below 250°F
  (to 750°F if Chemical Resistant Masonry used)
Quality at Electro Chemical is more than inspection, analysis and strict adherence to ASTM standards. It is also continuous research and development, and the constant implementation and application of the latest technologies available. This commitment has not changed since we pioneered the first fluoropolymer lining systems in the early 1980’s. Our decision to share proprietary quality control knowledge freely contributed to the rapid growth of the market, and we continue to be the industry standard.

Electro Chemical offers the broadest selection of Lining and Coating systems in the industry. In addition to fluoropolymers for severe environments, we also provide thermoplastic, elastomer, rubber and thermoset linings for less severe corrosive conditions. Our engineers will do a thorough analysis of your operating environment before recommending the system that will provide the lowest life-cycle cost. Since prices for systems vary widely by both material and method of application, Electro Chemical will provide the price vs. performance information necessary to determine the system that best satisfies your needs.

Electro Chemical maintains a core competency in Corrosion Resistant Masonry (CRM) lining systems for process vessels and tanks that are subject to severe thermal and mechanical stresses. The three components of a CRM system are acid brick, mortar, and a protective membrane. In many circumstances, the combination of a fluoropolymer protective membrane with brick and mortar overlay is more cost effective than glass lined or high nickel alloy vessels. CRM systems can provide fluoropolymer corrosion protection on a continuous basis at operating temperatures in excess of 700°F.

### Lining Material Adhesive Powder Dispersion Spray Spray Laminate

<table>
<thead>
<tr>
<th>Lining Material</th>
<th>Adhesive Bond</th>
<th>Powder Spray</th>
<th>Dispersion Spray</th>
<th>Cured Laminate</th>
</tr>
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<tbody>
<tr>
<td>PFA</td>
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<td>X</td>
<td>X</td>
<td></td>
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<tr>
<td>MFA</td>
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<tr>
<td>PVDF</td>
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### Additional Lining Systems

#### Thermoplastics
- Polypropylene (PP)
- Polyethylene (PE)
- Polyvinylchloride (PVC)

#### Elastomers
- Hypalon
- Neoprene
- Chlorobutyl

#### Rubber
- Hard Natural Rubber
- Soft Natural Rubber

#### Thermosets
- Vinyl Ester
- Polyester
- Furan
- Epoxy
From the initial specifications to the final delivery, Electro Chemical assumes full responsibility for providing turnkey solutions. Our field teams are available for deployment to your site when it is impractical to do the work at one of our facilities. Whether it takes several weeks or a few days, you can rely on our experienced field teams to execute a flawless project. Our field teams are also available for immediate, round-the-clock deployment for emergency maintenance and repairs.

As the industry leader, we have the experience to know what works and, just as importantly, to know what doesn’t work. Our technical staff has installed hundreds of successful fluoropolymer lining systems for large and small companies across a broad spectrum of industries. Electro Chemical’s experience and knowledge translates into better reliability, durability and cost-effectiveness for you.
You can depend on Electro Chemical to find the best solution to your corrosion problems. We welcome your visit to one of our production facilities or your call to one of our technical support staff.

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