

# Enduro<sup>®</sup> LF10 Coating

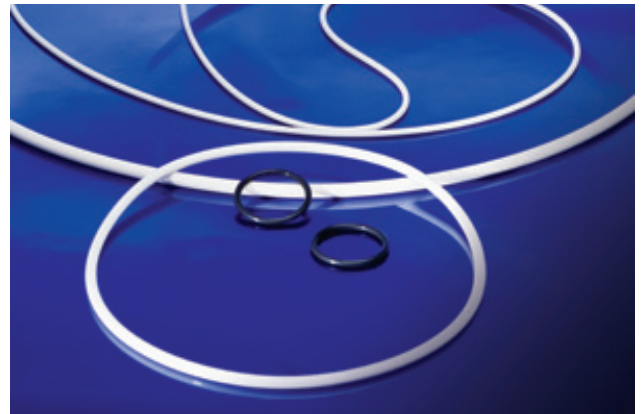
## Improves Component Performance

### Provides Low Stiction and Low Friction

Greene Tweed's Enduro<sup>®</sup> LF10 coating is a thin conformal, PTFE-based coating that can be applied to a variety of components within manufacturing equipment, including elastomeric, thermoplastic, or metal components, to enhance their performance. Enduro<sup>®</sup> LF10 improves performance by reducing the sticking force between component interfaces or wear caused by friction, both of which will reduce particulate generation. The coating exhibits excellent adhesion, high purity, and excellent conformality to thoroughly cover complex surface features. With deposition at low temperatures, it can be applied to many types of surface materials. For aqueous chemical environments, Enduro<sup>®</sup> LF10 can also render surfaces from hydrophilic to hydrophobic. The coatings work well for both static and dynamic applications.

### Features and Benefits

- Continuous use at high temperatures equal to PTFE (up to 550°F/288°C) meets the thermal needs of most processes
- Excellent purity, adhesion, and conformality allows the coating to provide process benefits, thus enhancing yield
- High conformality enables coating of complex surface features
- Friction and sticking force reduction extends lifetime of components, especially in dynamic and semi-dynamic applications
- Deposition occurs at low temperatures allowing coating of delicate structures and temperature-sensitive materials
- Low friction properties minimize particulate generation between moving components
- Changeable surfaces from hydrophilic to hydrophobic enhance process equipment process efficiencies



Enduro applied to Chemraz<sup>®</sup> seal

### Applications

- Reduced coefficient of friction for static and dynamic elastomeric seals
- Reduced sticking force (separation force) for seals including vacuum seals
- Reduced coefficient of friction for plastic and metal components
- Conversion of surface property from hydrophilic to hydrophobic

### Coating Thickness

Enduro<sup>®</sup> LF10 is applied at the micron level for:

- Solid substrates
- Flexible substrates (elastomers)
  - Low particulation applications

*Note: Color variations and dark spots that might be observed in Chemraz<sup>®</sup> parts are considered cosmetic and an inherent result of the polymer curing process. They are not foreign matter and not anticipated to adversely affect the performance of the part in service. Please contact a Greene Tweed applications engineer for additional information.*

### Contact Us

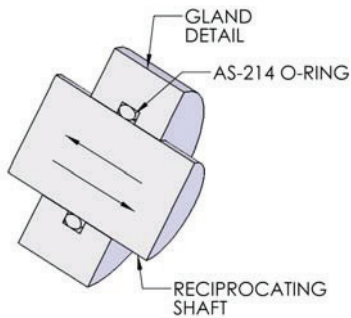
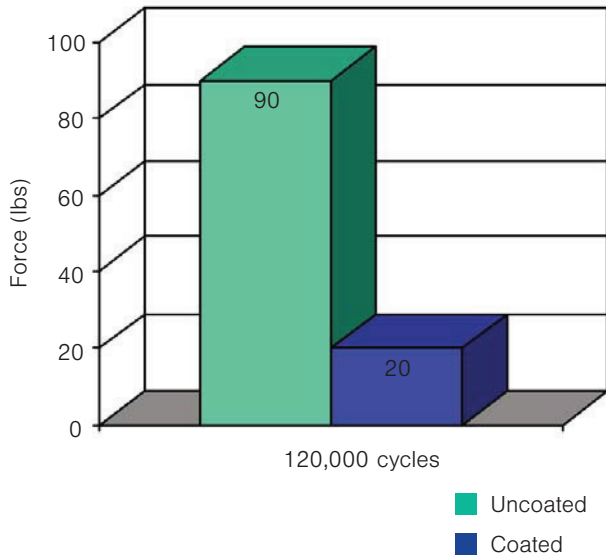
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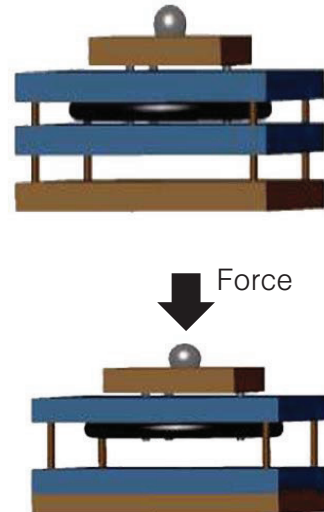
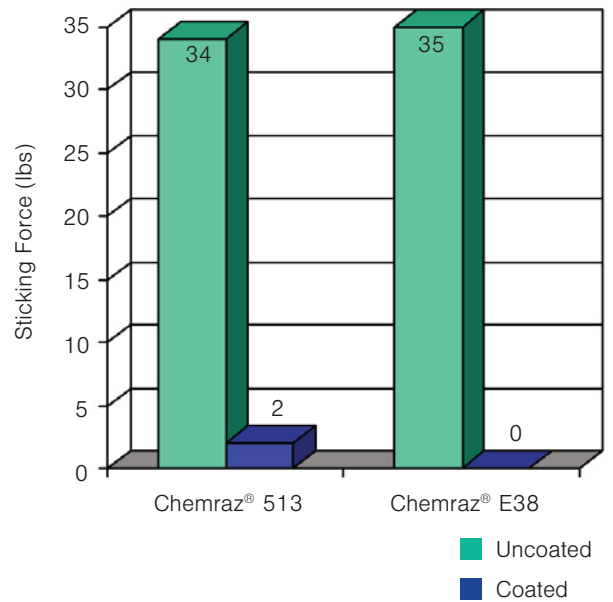
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### Friction Force on Chemraz® 505 AS-214 O-Rings



### Sticking Force on AS-214 O-Rings



The illustrations above show an AS-214 o-ring compressed between SS plates. After the assembly is aged at the determined time and temperature, the fixture is removed from the oven and cooled to room temperature. The maximum force required to push the blue plates apart is recorded as the sticking force.

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