



# ENGIPLAS

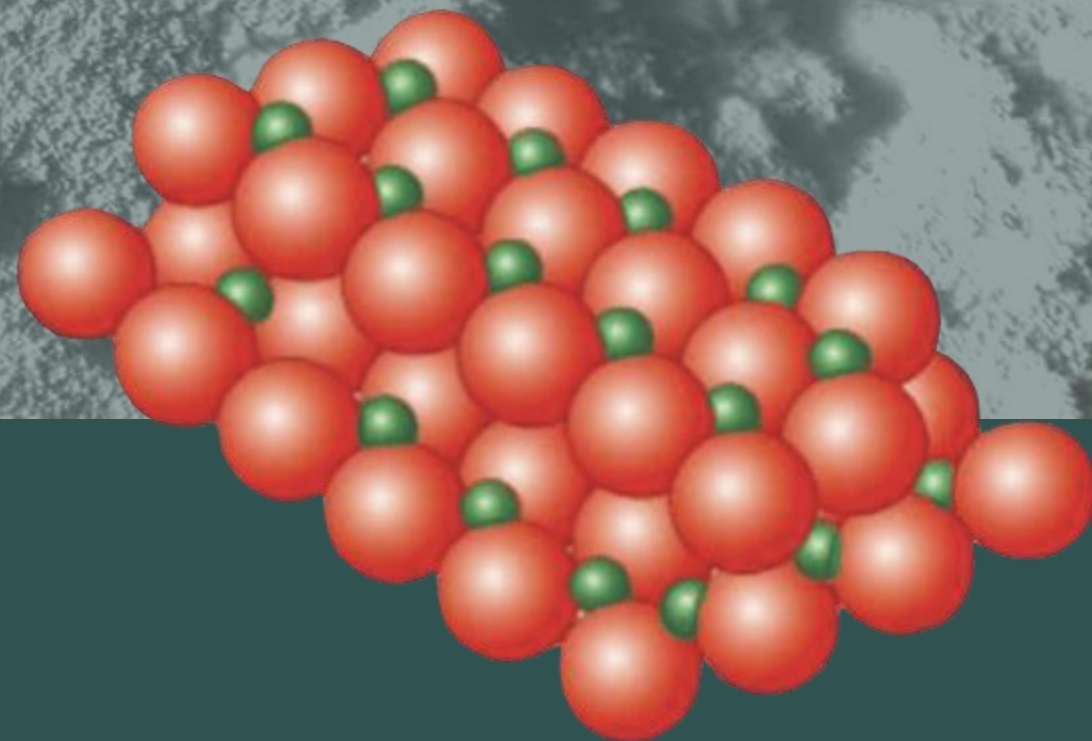
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# FLUOROPOLYMERS

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Most of the useful properties of Fluoropolymers are due to Fluorine. The most electro-negative element, and the most reactive non-metal. Fluorine atoms are just the in the right size and fit neatly around the C-C backbone atoms.

After reacting with Carbon in fluoropolymers, the C-F bond that forms is one of the shortest and strongest found in nature, producing extraordinary combination of properties:



# CHEMICALLY INERT

Fluoropolymers are practically inert against known elements and compounds. Highly corrosive agents, such as hydrochloric acid, hydrofluoric acid, fuming sulphuric and nitric acids, hot caustic soda solutions, chlorine gas, hydrazine and nitric oxides as well as alcohols, esters, ketones, and acid chlorides have practically no effects on totally fluorinated polymers such as – PTFE , PFA , MFA , FEP .



# NONSTICK

The intermolecular forces are considerably smaller than in other plastics because of the high bond energy between carbon and fluorine and the low polarize ability of the fluorine atoms. These anti-stick properties are utilized in numerous applications.



# LOW COEFFICIENT OF FRICTION

The very low intermolecular forces are also conducive to low friction coefficient – the lowest of all solid materials.



## **CONTAINMENT AND PURITY OF HIGH PURITY MEDIA**

The unique chemical, electrical, thermal and surface characteristics make fluoroplastics ideally suited for semiconductor process equipment, pharmaceutical and biotechnology industries.

Fluoropolymers features ultra high-purity and nonstick finishes suited for electrical-grade and high purity applications.