

Fluorotechnology Makes Possible Important Products in Vital Industries

Fluorotechnology is essential to the reliable and safe functioning of products used by consumers and industry every day. When fluorine and carbon atoms join, they form a powerful chemical bond, giving materials strength, durability, heat resistance, and stability. Here are some common applications of fluorotechnology:



ALTERNATIVE ENERGY

Qualities: Insulation, durability, heat and chemical resistance

Examples: Lithium batteries, fuel cells, and solar panels



AUTOMOTIVE

Qualities: Durability, heat and chemical resistance, and oil, soil, and water repellence

Examples: Vapor barriers, engine compartment wirings and gauges, and automobile carpets and seats



SEMICONDUCTORS

Qualities: Durability and heat and chemical resistance

Examples: Micro-electronics, plasma machinery, etching materials, cleaning fluids, and wetting surfactants for chemical etchants



BUILDING/CONSTRUCTION

Qualities: Durability, UV resistance, corrosion resistance

Examples: Infrastructure, facades, and surfaces



OIL AND GAS

Qualities: Durability and heat and chemical resistance

Examples: Oil field and pipeline operations safety equipment, fuel system seals and hoses, O-rings, and downhole/field equipment gaskets



ELECTRONICS

Qualities: Insulation, durability, transparency, and water resistance

Example: Smooth and smudge-resistant touch screens



FIRST RESPONDERS

Qualities: Heat resistance, insulation

Examples: Safety gear used to protect emergency responders and medical personnel.



MILITARY

Qualities: Durability and heat and chemical resistance

Examples: Safety equipment in extreme environments and against chemical warfare agents



HEALTHCARE

Qualities: Insulation, durability, heat and chemical resistance, and disease transmission prevention

Examples: Defibrillators, pacemakers, MRI imaging devices, medical garments, and drapes



CHEMICAL/ PHARMACEUTICAL MANUFACTURING

Qualities: Heat and corrosion resistance

Examples: Chemical coatings, linings, and equipment



AEROSPACE/DEFENSE

Qualities: Chemical resistance, weather resistance, and insulation

Example: Fluid seals, hydraulic fluids used in aircraft control systems, and aircraft communications and navigation systems