Savillex
Science Contained

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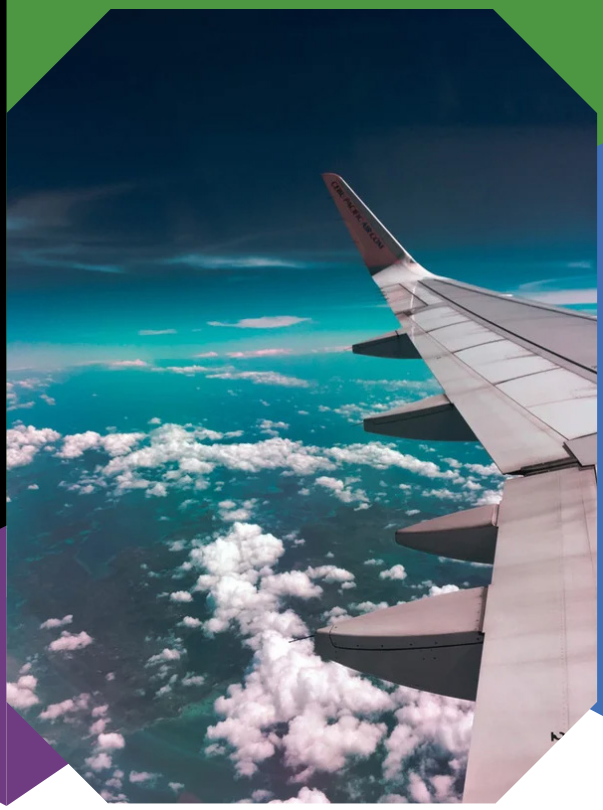
# Custom Engineered Components for Global Aerospace Company

## SUCCESS STORY



Fluoropolymers have a long history of being used in a range of lab appilications, and now have been proven to offer numerous benefits to the aerospace industry.

Both machine PTFE (Polytetrafluoroethylene) and injection molded PFA (Perfluoroalkoxyalkanes) have been used to a limited extent in creating plane components. Though, with a push to produce lighter, more fuel-efficient aircraft, a larger marker for fluoropolymers is developing.

## CHALLENGE

Finding a robust, non-flammable material for airplane components that could withstand immersion in jet fuel while maintaining high lubricity.

## SOLUTION

A Savillex custom engineered PFA component.

## RESULT

Developed durable and resilient components to meet all critical customer and aerospace industry requirements.

**Savillex is a World Leader in Custom Engineered Fluropolymer Components**
We specialize in manufacturing high performance plastics for demanding environments. Our custom-engineered components are used all over the world and in a range of applications - from supporting fuel lines in passenger aircraft, to lab and filtration equipment.

**Challenge: Fluoropolymers Take Flight - Practical Applications in Aircraft**
Working in partnership with a leading global aerospace company, Savillex developed customized, moldable PFA clamp inserts for the fuel and hydraulic lines within an aircraft's composite wings.

To be viable, these compoinents needed to be non-flammable. They also needed to be non-reactive to jet fuel, as the clamps are completely immersed within the fuel tank, Finally, the components had to have high lubricity (low friction), given that the fuel and hydraulic lines slide through the clamp inserts as the wings flex in flight.

Fluoropolymers - molded PFA, in particular - were the only materials that had the required non flammability and lubricity properties. PFA fluoropolymers are also extremely durable and resilient materials that can survive working temperatures of as low as -200°C and as high as 260°C.

Other logical places for fluropolymers (beyond an aircraft's fuel/hydraulic system) could include electrical connectors, bearings and fasteners-to help support and protect a plane's intricate systems-as well as lavatory and galley accessories.

**Flexible, Cost-Effective, and Customizable Materials**
Any component used in aerospace that is currently manufactured from machined polymers has the potentital to be made more cost-effectively, quickly and precisely with molded PFA.

Savillex brings expertise in designing specialized tooling, so that complex PFA components can be manufactured at lower per-unit costs than machined PTFE parts. The PFA molding process can also be scaled up or down depending on part demands while maintaining tight quality control and flexibility.

**Your Partners in PFA**
Working in partnership with you Savillex engineers will develop an in-depth understanding of your application and part requirements, while also identifying opportunities for improvements and enhancements. Want to learn more about how PFA can be customized to fit your specific applications? Contact us to learn more.