



Non-Porous, Anti-Moisture Membranes

Prevent corrosion from moisture and liquids using fluoropolymer barriers

Features:

- Unlike PTFE, FEP and PFA are non-porous
- Resistant to virtually all fluids and gases
- Lightweight
- Encapsulate / contain fluids or gases or Protect using barrier membrane



The best way to explain the many varied uses of non-porous Fluoropolymers is to share a few customer case studies.

Rolls Royce: Aero Engine Fan Casing

The use of Kevlar mesh around the fan casing of aircraft engines is widely accepted as an indispensable safety feature. However, Kevlar can be attacked by aggressive liquids that are used within aero engines. This therefore needs to be protected.



Holscot can protect the fan casing by manufacturing a heat shrinkable sleeve from FEP using our proprietary in-house extrusion and forming skills. Custom made to your desired diameter and % shrink down. The sleeves are chemically treated on both sides to secure the sleeves to the casing and to effect ongoing repairs later if necessary. Holscot sleeves are a proven protection barrier to all known aviation fluids and have been in service for many years. They are able to withstand normal maintenance knocks and bumps without compromise, however a repair regime is also available for on-site repairs.





BAe Systems: Toilet and Galley Protection



In the toilet and galley areas it is vitally important to contain inevitable spillages, preventing ingress which can cause corrosion to sensitive areas of the aircraft.

Using a combination of specialist thermoforming and welding techniques, combined with Holscot's in-house extruded 0.25mm FEP material, a non-porous FEP membrane was constructed. The protective membrane was shaped to exactly fit the contours of the wall and floor area in both the toilet and galley. The finished membrane was chemically etched, once again using Holscot's proprietary knowledge.

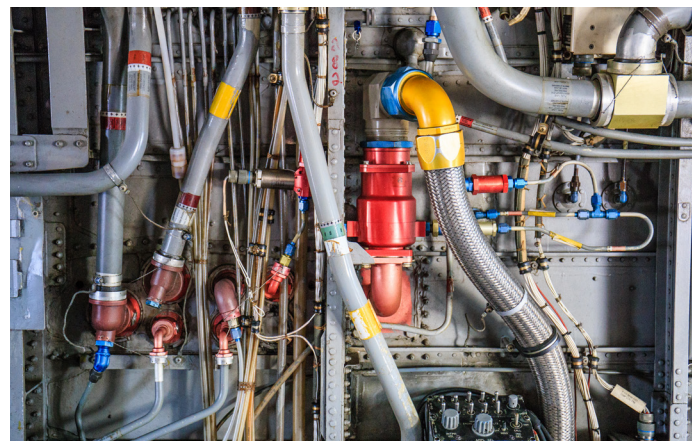
The same concept has since been used by the RAF VC10 aircraft.

Case Study: Containment of Hydraulic Fluid

A customer was in an emergency shut-down situation. Holscot were tasked with designing and producing a method of encapsulating pipework running with hydraulic fluid.

Within days Holscot was able to offer a complete solution. A containment envelope was developed using Holscot's 0.25mm FEP sheet which was the ideal choice due to its resistance to fluids and flexibility to fit within confined spaces.

The envelope needed to be secured to an adaptor so Holscot's experts in forming created a bespoke vacuum-formed area. This was then welded to the main body using Holscot's proprietary undiscernible welding expertise. The whole membrane was then chemically etched to enable adhesive tapes to be used to secure it



in place. Due to the collaborative approach to problem-solving, and Holscot's short lead-times, all aircraft were quickly protected and back in service.

To find out how Holscot can help your business
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