

# FLUOROPOLYMER COATINGS WIDE CHEMICAL COMPATIBILITY



“

FIRST CLASS SERVICE  
WORLD CLASS FILTERS

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When filtering aggressive chemicals and solvents it is imperative to choose the correct base material, coating or surface modification.

Fluoropolymer coatings can be applied either in powder or liquid form and offer a largely chemically inert coating some 50-100 microns thick with excellent temperature resistance and desirable properties such as FDA compliant top coats.

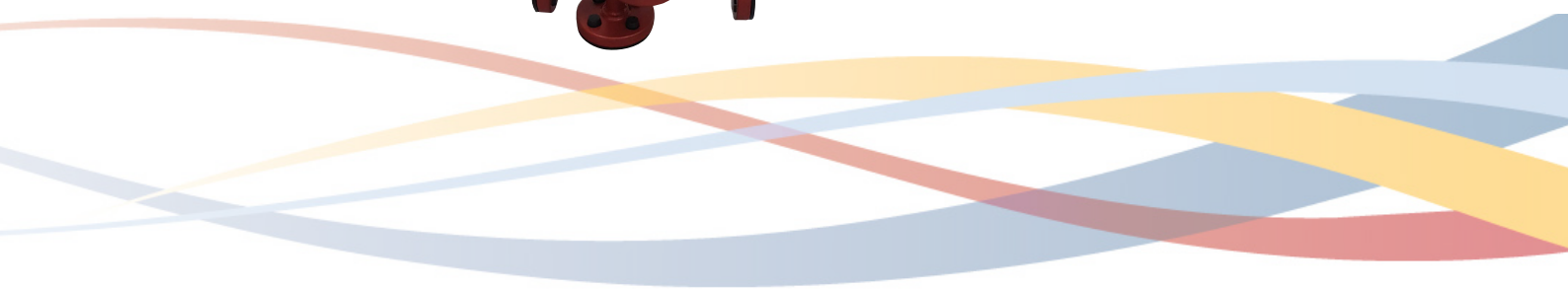
Their easy application to a wide variety of geometries combined with relatively low cost (compared to exotic alloy construction or surface treatments) makes them an attractive proposition in principle.

Despite their superb chemical resistance, simple fluoropolymer coatings do have some weaknesses, primarily their permeability and susceptibility to damage that limit their useful life in service before repair or replacement is necessary.

All fluoropolymer coatings are microporous which means that the process fluid permeates over time, eventually reaching the substrate, resulting in blistering and delamination of the coating, and chemical attack of the substrate.

The coatings themselves are also vulnerable to damage from mechanical handling, particularly so in the case of a filter housing which is regularly opened for change out and requires careful handling to avoid damage when inserting or removing the filters.

As a result of operation experience [Amazon Filters](#) offers, depending on size of filter, two different types of advanced fluoropolymer coating using novel technologies to mitigate as far as possible the limitations of simple fluoropolymer coatings.

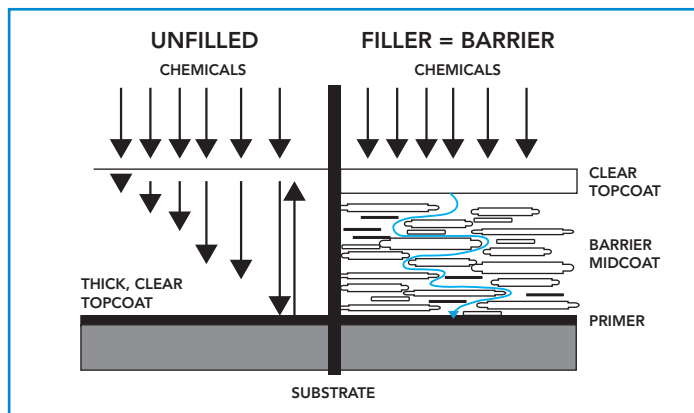


## FILLED FLUOROPOLYMER COATING

Filled 'Ruby Red' high build PFA coatings offer excellent resistance to both permeation and abrasion when compared to other fluoropolymer coatings.



The proprietary filler material dramatically decreases the permeation rate compared to unfilled PFA, which combined with 2-3 high-build coats offers a 200-300 micron thick barrier proven to last longer in service than comparable systems, leading to longer service life before repair or replacement.



## FLUOROPOLYMER ROTOLINING

For less complex and larger internal geometries, it is possible to install by a novel manufacturing process, a fully bonded coating up to 7mm thick (far thicker than can be achieved by conventional application techniques). This is available in PVDF (Kynar), PFA (Teflon) and ECTFE (Halar), depending on the process fluid.

The additional thickness of this coating makes it more robust to general wear and tear, while offering a much longer permeation path and therefore significantly longer service life than a conventional coating only a hundredth as thick.



## FEATURES AND BENEFITS

- **Filled PFA:**
  - Most cost-effective treatment and provides good service life. Service life dependent on filtered fluid and temp.
  - Coating thickness around 200 microns means complex geometries can be treated.
- **Rotolining:**
  - Provides a thick (up to 7mm) coating which has excellent chemical resistance (dependent on polymer) and abrasion resistance.
  - Cost effective on larger multi cartridge housing designs and when larger numbers of housing are purchased at once.

Please contact your local sales office for more information on availability.

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