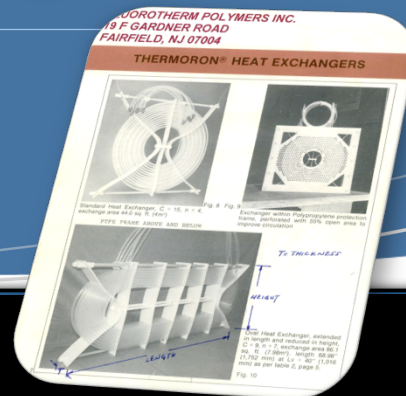


# FLUOROTHERM POLYMERS INC

"A UNIVERSE OF POSSIBILITIES"

**FLUOROTHERM™**

Fluorotherm manufactures corrosion resistant products from PTFE, TFE, FEP, PFA, MFA and other materials.



## Letter From Fluorotherm

To Our Valued Customers:

Fluorotherm started out as a specialty manufacturer of fluoropolymer products in 1992, under the aegis of Norton Performance Plastics, now St. Gobain Performance Polymers. That was 16 years ago!

With a strong R&D background in fluoropolymers, gained by our key people during their employment with DuPont; we have continued to progress toward a wider product range, including tubing manufacturing, to serve a broad range of applications in diverse markets.

Now, not only have we moved to expand our operations here in the US and overseas, but are responding to customer demand more than ever. Our newest products include:

- Expanded tubing line to cover a broad range of sizes in PTFE, FEP, PFA, ETFE and PVDF
- Immersion Coil Heat Exchangers in high temperature usage PVDF frames and either FEP or PFA tubing
- Custom fabricated tube products with flared, flanged, and custom shapes

We hope that you will join us in helping Fluorotherm pave a successful path for the future. We are grateful to all of our customers for their continued support.

Graciously,

*Prabhat Shukla*

Prabhat Shukla, President

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Fluorotherm Polymers Inc  
333 New Road  
Parsippany, NJ 07054

sales@fluorotherm.com  
(973) 575-0760 Phone  
(973) 575-0431 Fax

www.fluorotherm.com

## Green Technology

### Fluorotherm's Products Aid in Green Revolution

Fluorotherm recently harnessed the capability of its high purity PFA tubing line to boost the green revolution overseas.

Selected over three separate suppliers, Fluorotherm has shipped over 30,000 feet over the past year to aid in the building of several solar panels in Asia as part of a new green initiative.

Fluorotherm's products continue to help defend against the deleterious effects of pollution and other toxins released into the air by advancing research and initiatives in greener projects, like solar panels.

To see how Fluorotherm can assist you in your initiative for the future, please visit [Fluorotherm's Website](http://www.fluorotherm.com)



*Fluorotherm's High Purity PFA Tubing*

## FEP: Back to Basics



*Fluorotherm's FEP Tubing*

FEP (Fluorinated ethylene propylene) is a fully fluorinated copolymer. FEP is established for its excellent chemical resistance, outstanding electrical properties and a wide service temperature range extending up to 400 deg F. A list of its key properties is shown in the table below. FEP is UV light transparent - a property that is effectively utilized in water disinfecting by ultra violet light of the appropriate wavelength. FDA regulation 21 CFR 177.1550 is applicable to FEP for use as article or components of articles intended to contact food. FEP is classified as USP Class VI and applies to tubing products.

To see the comparisons of our Teflon® products including PFA, MFA, ETFE, PCTFE, and PVDF please visit our product comparison chart [HERE](#).

## CTFE Tubing Exhibits High Tensile Strength

Fluorotherm manufactures extruded Neoflon® PCTFE (previously known as Kel-F®) rod or bar stock. Standard stock sizes upto 1.00" diameter are currently available. Tolerance ranges from -0.000" to +0.002". Products are free of contamination, degradation or shrink voids in the bar stock applications where chemical inertness to aggressive fluids is critical.

CTFE has a high compressive strength and low deformation under load. It is inert to attack to variety of chemicals, including mineral acids. It is generally not recommended for use with organic solvents. Its excellent properties, particularly at high temperatures, makes it the material of choice in heating and ultrapure applications. A tabulated comparison of properties of CTFE versus other fluoropolymers is available from [Fluorotherm](http://www.fluorotherm.com).

CNC or screw machining operations convert bar stock into products for a wide variety of applications in the chemical, and the electrical field. PCTFE is well established these applications due to its fluoropolymer characteristic and high strength.



*Fluorotherm's CTFE Tubing*

## PTFE: Back to Basics

PTFE (Poly tetra-fluoro ethylene) is a fully fluorinated polymer available in various unmodified and modified grades. PTFE is processed by compacting the powder under pressure at ambient or slightly higher than ambient temperatures. Methods of forming products include paste extrusion, ram extrusion, molding and calendaring between rolls. Many formed PTFE products are consolidated by sintering in an oven or used in unsintered form (eg: thread sealant tape). Paste extrusion and calendaring methods are used with fine powder PTFE resins while granular PTFE resins are processed by ram extrusion and molding.



## Fluorotherm FAQs

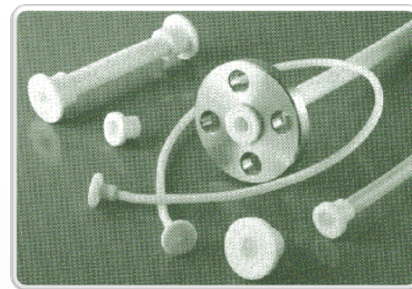
### General FAQs

#### What other custom products have you manufactured?

Here are just a few examples of custom made plastic items and products developed or co-developed and manufactured by Fluorotherm:

- Guide tube with a precision stainless steel ring insert
- Bonded PTFE flange to PFA and PTFE tubing (non-adhesive)
- Custom PTFE laminar plate heat exchanger
- Fluorotherm machines and Industrial tubing benders:(Sanitary flow tubes and pipe with single and/or multiple bends)
- PFA tubing 90 degree, U and Z shaped sweeps for ultrapure, sanitary flow
- Formed PFA and FEP coils for fluid flow and heat transfer applications

Be sure to check out all of Fluorotherm's capabilities online at [www.fluorotherm.com](http://www.fluorotherm.com)



### Customer Reviews

"Fluorotherm has exceeded our expectations with the wonderful, wonderful job you have done. The quality of your (PTFE tubing) product has pleasantly surprised everybody here. We look forward to doing business with Fluorotherm." - JH, Rhode Island.

"Your (PTFE/FEP tube) heat exchangers last very long. That's why we don't buy enough of them" - DS, Michigan.

"I have one less thing to worry about after Fluorotherm (FEP tubing) Heat Exchangers replaced our old tank(s) heating system. We are saving money. I will be happy to recommend your products" - GB, Pennsylvania.

"The (PFA tube coil) heat exchangers are working perfect. Your equipment and our workmanship made the replacement of (graphite block exchangers) a success. The (bath) temperature is the highest it has ever been." - RR, Pennsylvania

### Suggestions or Comments?

If you would like to comment on the Fluorotherm Newsletter and/or write a review about a Fluorotherm product please e-mail [sales@fluorotherm.com](mailto:sales@fluorotherm.com)

"I am very pleased with your product (PFA tubing heat exchanger) performance. We are going to replace the existing units with your coil heat exchangers as they come due" - RH, South Carolina