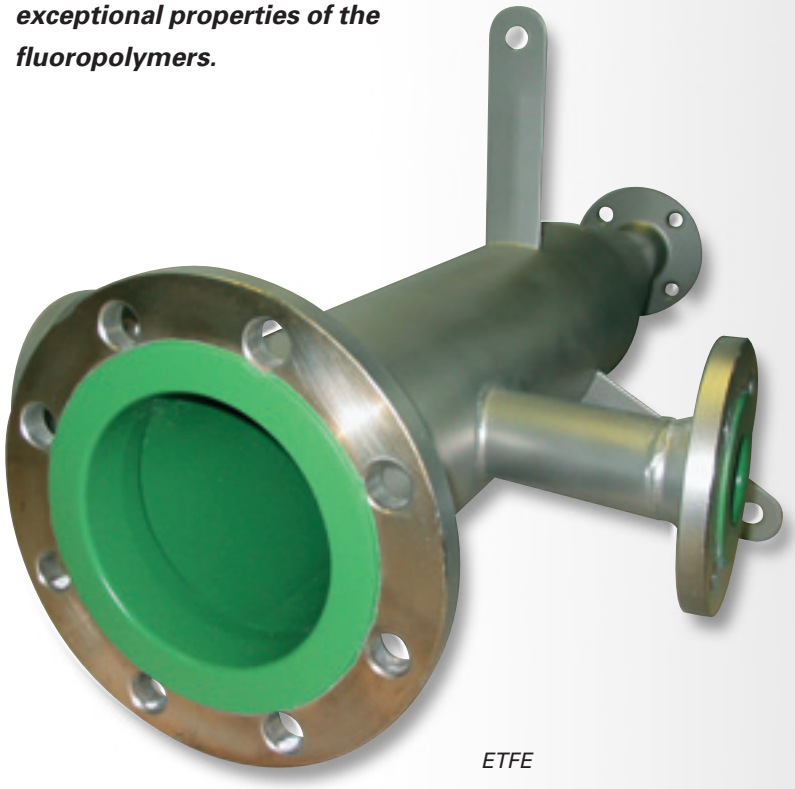
Kersten Kunststof(f)coating

Fluoropolymers

Fluoropolymers

For many years, Whitford and DuPont have been manufacturing various kinds of fluoropolymers for high-quality and durable applications. Kersten Kunststofcoating applies the coatings to numerous different metal surfaces in virtually all industrial environments on account of the exceptional properties of the fluoropolymers.



ETFE

Properties

Fluoropolymers is a wide range of PTFE, FEP, PFA and ETFE coatings with specific properties:

- non-stick
- low friction coefficient.
- self-cleaning and self-lubricating
- excellent chemical resistance
- capable of withstanding high and low temperatures.

The PFA Ruby Red and filled ETFE coatings are highly resistant to vapour diffusion, i.e. blistering caused by the penetration of vapours and subsequent vapour condensation on metal surfaces.

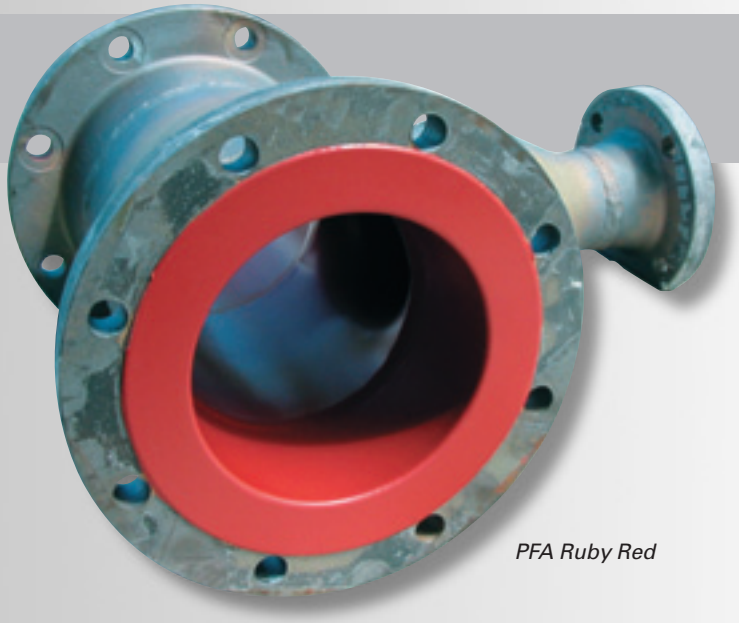
All coatings mentioned below possess these exceptional properties. The overview provides a general picture of the differences between the various types of the fluoropolymer coatings.

Fluoropolymer coatings	non-sticking properties	abrasion resistance	corrosion protection	resistance to diffusion	max. use temperature,°C*	thickness µm
PTFE	+++	+/-	+/-	not relevant	280	15-40
FEP	+++	+	+	+	205	50-100
PFA	++	++	+	+	260	50-100
PFA, Ruby Red	++	+++	+++	+++	260	400-1000
ETFE	+	+++	+++	++	150	400-1000
ETFE, filled	+	+++	+++	+++	150	400-1000

Explanation:

+/- sufficient + good ++ very good +++ excellent

* Max. use temperature is also depending on the chemical properties of the medium.



PFA Ruby Red

Applications

Depending on the application and required properties, you can select the optimum coating.

Some examples of applications are:

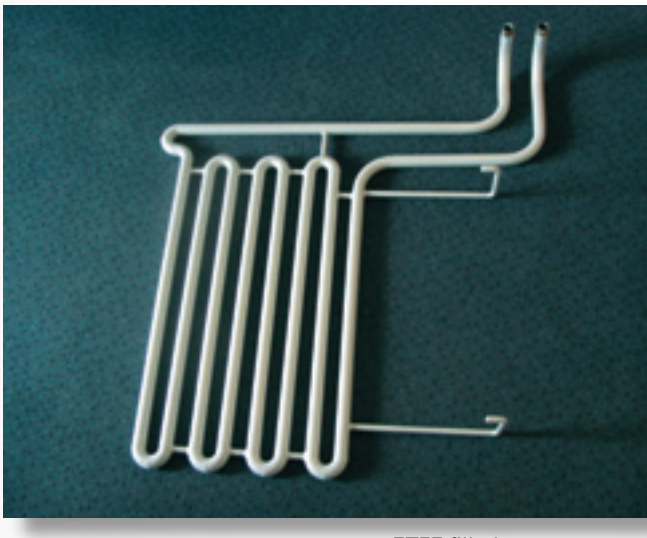
- tanks, barrels, pumps, pipelines, heat exchangers for storage and transport of aggressive media.
- machine parts for the food industry, process industry, galvanic industry and semiconductor industry.
- metal surfaces that must be given one or more of the above-mentioned specific properties of the fluoropolymers.

Construction guidelines

If a fluoropolymer is being used to provide excellent corrosion protection, the part to be coated must meet a number of requirements in order to be able to apply a homogenous and pore-free coating. Welds must be smooth and free of pores and all sharp edges must be rounded to the largest possible radius. The parts must be constructed according to our dimension guidelines, which we will be pleased to send you on request.

Coating procedure

Fluoropolymers are applied in the form of dispersions, powders or combinations of the two. After removing any old coatings (Kersten Kunststofcoating has a cleaning system for environmentally-friendly removal of old coatings) and careful surface preparation, the dispersion will be applied and heated to the correct temperature. This may be as high as 370 degrees centigrade. If the dispersion is used as a primer, the next coat will be applied by means of electrostatic powder spraying. The part will then be heated to a temperature above the powder's melting point to create a homogeneous coating. Depending on the type of coating chosen, various coats of powder will be applied to achieve the required coating thickness.



ETFE filled

Fluoropolymers

Brummen

Kahla

Kersten Kunststof(f)coating

Kersten Kunststofcoating B.V.
P.O. Box 40, NL-6970 AA Brummen
Vulcanusweg 2, NL-6971 GW Brummen
Phone: (+31)0575 561500
Fax: (+31)0575 561829
E-mail: info@kersten-bv.nl
Homepage: www.kersten-bv.nl

Kersten Kunststoffcoating GmbH
Im Camisch 20, D-07768 Kahla/Thüringen
Sales: Phone (+49)036424 8899
Fax (+49)036424 8898
Production: Phone (+49)036424 8890
Fax (+49)036424 8891
E-mail: info@kersten-gmbh.de
Homepage: www.kersten-gmbh.de