

Type 1216, 1400, 1415 ECTFE

Since 1990 Halar® ECTFE powder coating have been used successfully for corrosion protection of exhaust duct system. Halar® ECTFE, a copolymer of ethylene and chlorotrifluoroethylene, is a semi-crystalline melt processable partially fluorinated polymer. It is available in different grades that are specifically designed for electrostatic powder coating.

Halar® ECTFE is particularly suitable for use as a coating material in protection and anti-corrosion applications thanks to its unique combination of properties.

Processing

ECTFE is available in different grades that are specifically designed for electrostatic powder coating, fluid bed coating, or both.

Markets and Applications

Typical applications served by HALAR® ECTFE including those in contact with highly corrosive or ultrapure chemicals such as strong inorganic bases and strong mineral and oxidizing acids including :

- Vessels
- Valves
- Reactors
- Semiconductor chemical storage tanks duct work
- piping system
- Centrifuges
- Agitators
- Exhaust hoods
- Filters
- Electroplating equipment
- High chemical resistance
- Ultrapure water and high purity chemicals
- HALAR® ECTFE exhibits very low fluoride ion leachout
- Protective coating for aggressive environment and smooth corrosion protection
- Excellent resistance to : Hydroflouric Acid, Sulfuric Acid, Nitric Acid, Piranha, Hydrogen Peroxide, Ozone, Ammonium Hydroxide, All Alkaline Chemistries, All Etchants and Strippers.

Key features

- Very good chemical and thermal resistance
- Optimum permeation resistance
- Outstanding flame resistance
- Very good surface characteristics
- Surface smoothness
- Purity

Excellent coating adhesion

Halar® ECTFE coating provides excellent adhesion, as demonstrated by film rupture in peel test.

Typical Properties

Typical properties		Halar® ECTFE
Melting point	°C	220-227
Specific gravity		1,68
Max. Continuous service temperature	°C	150
Oven process temperature	°C	250-280
Thermal expansion coefficient	10 ⁻⁵ /°C	8
Flexural modulus @ 22 °C	ASTM D790 Mpa	1,7
Tensile modulus @ 22 °C	ASTM D638 Mpa	1,7
Yield stress @ 22 °C	ASTM D638 Mpa	32
Tensile strength at break	ASTM D638 Mpa	48
Hardness Rockwell - Pencil	kV	R93-4B
Flammability		94 V-O
Oxygen index	%	60
Water absorption	%	<0,001
Low temperature embrit	°C	<-76

Design

100% ECTFE



Body : Nodular Iron
Carbon steel
Stainless steel

Trims in ECTFE



Body : Stainless steel