

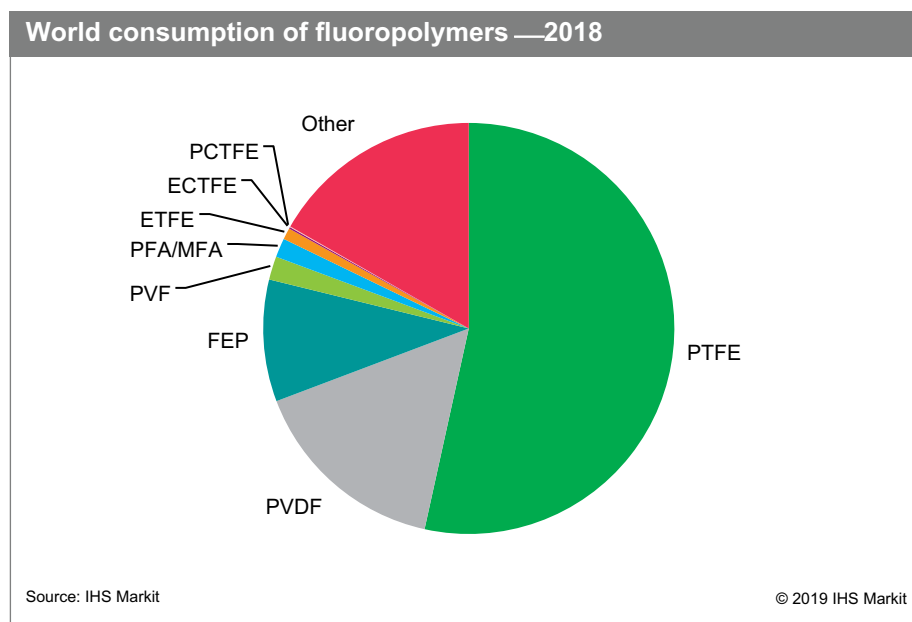
Fluoropolymers

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Abstract

Fluoropolymers are among the most useful modern materials, providing nonstick surfaces for cookware and industrial products, waterproofing surface treatments for clothing and other substrates, stain barriers for textiles, high-purity fluid handling “plumbing,” medical applications, wire and cable insulation jackets, high-performance coatings for harsh environments, mar-free coatings for touch screen electronic devices, architectural and marine coating additives, backsheets for photovoltaic panels, films and membranes for technical, waterproof clothing, and industrial applications.

The following pie chart shows world consumption of fluoropolymers by type:



PTFE is the dominant fluoropolymer, accounting for the majority of world fluoropolymer consumption in 2018. Other fluoropolymers include PVDF, FEP, PVF, PFA/MFA, ETFE, ECTFE, PCTFE, THV, CTFE-VDF, and amorphous types. China was the dominant consumer of PTFE in 2018; the United States and China are also major consumers of other fluoropolymers.

PTFE resin has been commercially available for over 60 years and a variety of applications have been developed, including the following:

- Wire and cable insulation for electrical/electronics and aerospace

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- Plumbing and fluid processing equipment for chemical, petroleum, environmental, semiconductor, and medical applications
- Textile fibers for clothing, dental floss, and industrial/environmental applications, including laminates for clothing and industrial applications
- Lubricants for printing, including lubricity materials for mechanical joints and contact points in mechanisms
- Cookware coatings
- Mechanical, coating, and lubrication applications for vehicles, building construction, industrial machines, and appliances

PTFE is the dominant fluoropolymer traded and consumed in the world.

China is the world's largest producer of PTFE; it is also the largest consumer. Chinese consumption of PTFE will continue to grow steadily during 2018–23.

Western Europe is the second-largest consumer of PTFE. Western European consumption of PTFE is expected to continue to grow, with consumption of other fluoropolymers growing only slightly faster during 2018–23.

The United States was the third-largest consumer of PTFE in 2018. Consumption growth for both PTFE and other fluoropolymers will be moderate during 2018–23.

Japan is increasingly specializing in fluoropolymers other than PTFE. Japanese consumption of both PTFE and other fluoropolymers will continue to grow moderately during 2018–23, with consumption for other fluoropolymers outpacing growth for PTFE.

From 2018 to 2023, world consumption growth for both PTFE and other fluoropolymers will be strong, with growth for other fluoropolymers slightly outpacing growth for PTFE.

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