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Fluoropolymers

US Industry Study with Forecasts for **2019 & 2024**

Study #3278 | June 2015 | \$5300 | 258 pages

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Advances in demand will result from continued expansion in industrial output and construction activity, as well as from strong growth in emerging markets such as photovoltaic modules and advanced batteries.

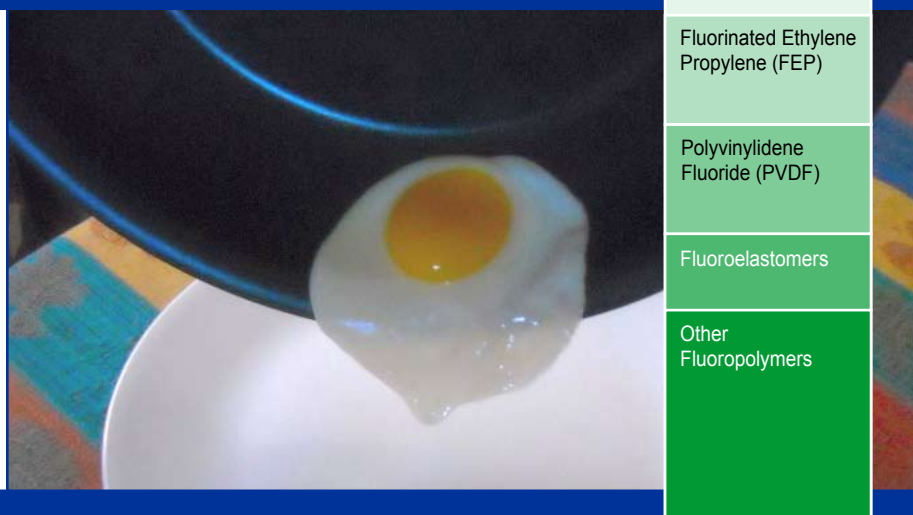
US demand to rise 5.3% annually through 2019

US demand for fluoropolymers is forecast to increase 5.3 percent per year to \$2.3 billion in 2019, with volume totaling 180 million pounds. While advances will primarily result from continued expansion in industrial output and construction activity returning to pre-recessionary levels, fluoropolymers will also benefit from strong growth in emerging markets such as photovoltaic modules and advanced batteries. Faster growth will mainly be restrained by competition from other resins, market maturity, and slowing output in key markets such as motor vehicles. Price increases through 2019 will be modest than during the 2009-2014 period. Value gains will primarily result from growth in volume demand as well as a shift in the product mix toward higher value resins.

Construction markets to offer best opportunities

The construction and electrical and electronics markets will provide the fastest growth in fluoropolymer demand. Electrical and electronics will overtake industrial processing as the leading market for fluoropolymers; this shift is in large part due to rapidly increasing demand for photovoltaic modules as interest in alterna-

US Fluoropolymer Demand, 2019 (\$2.3 billion)



tive energy sources such as solar power swells due to efforts to reduce dependence on fossil fuels. Additionally, a surge in US lithium-ion battery production from Tesla's Gigafactory will boost fluoropolymer demand over the long term. The construction market will exhibit the fastest growth of all markets, spurred by a rebound in the nonresidential construction segment where fluoropolymers find greatest use. More moderate advances are expected for the industrial processing and transportation equipment markets, restrained by a slowdown in motor vehicle and machinery output.

PVDF & PVF to be fastest growing fluoropolymers

Demand for polyvinylidene fluoride (PVDF) and polyvinyl fluoride (PVF) will grow at the fastest rates through 2019. PVDF growth will benefit from a strong rebound in architectural coatings, as well as increasing use in emerging markets such as advanced batteries for electric vehicles. PVF demand will rise rapidly from a small base, mainly fueled by stellar growth in demand for photovoltaic modules. The large polytetrafluoroethylene (PTFE) segment will see good growth prospects in chemical processing and industrial filtration.

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Sample Text, Table & Chart

APPLICATIONS

Films

Demand for fluoropolymers used in film and membrane applications is projected to rise 8 percent to \$1.8 billion in 2019, with a volume of 1.1 million lb. Advances will be made in applications, fuel cells, and medical devices. Expansion of key end uses include pharmaceuticals, healthcare modules, healthcare filtration materials (e.g., tank linings), and other applications. A different fluoropolymer is employed in film applications, including PVF, PTFE, PVDF, FEP, and other types such as ECTFE, ETFE, and PCTFE.

PVF film demand has grown strongly over the past decade and is expected to continue to do so going forward. In the electronics market, PVF films are employed as backsheet materials for photovoltaic modules. This has been the primary driver of demand growth for PVF resins. PVF films can also be used in the aerospace market to reduce the flammability of aircraft interiors. Additionally, they are utilized in the production of various interior components such as ceiling and sidewall decorative panels, window shades, stow bins, cargo bin liners, and aircraft wire markers. Due to the increased resistance to scuffing and fading provided by these films, aircraft maintenance needs -- and therefore costs -- are reduced. Similarly, the material can be applied to truck trailers to protect the side panels and roof, resist dirt and other contaminants, and eliminate the need for repainting. In the construction market, PVF film can be used in the production of ceiling and acoustical tiles, fiberglass-reinforced plastic (FRP) panels, formed or flat roofing panels, canopies, awnings, stadium domes, skylights, and cable wrap. In the industrial market, PVF film is typically used for jacketing. Chemours (previously DuPont) produces PVF film under the TEDLAR trade name.

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SAMPLE
TEXT

TABLE III-1

FLUOROPOLYMER DEMAND BY PRODUCT
(million dollars)

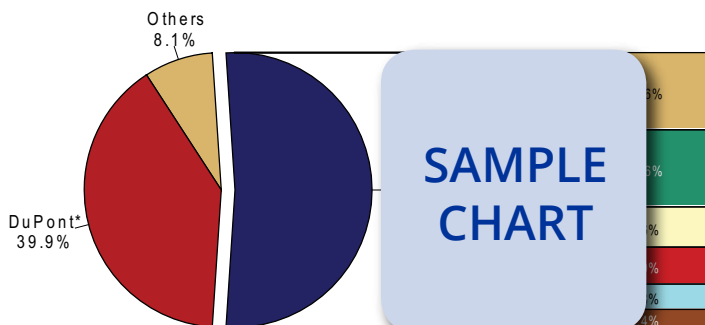
Item	2004	2009	2014	2019	2024
Manufacturers' Shipments (bil 2009\$)					
lb fluoropolymer/mil \$ mfg					
Fluoropolymer Demand (mil lb)					
\$/lb					
Fluoropolymer Demand					
PTFE					
FEP					
PVDF					
Fluoroelastomers					
PVF					
Other Fluoropolymers					
+ net exports					
Fluoropolymer Shipments					

SAMPLE
TABLE

Source: The Freedonia Group, Inc.

CHART VI-1

US FLUOROPOLYMER MARKET SHARE, 2014
(\$1.8 billion)



SAMPLE
CHART

*Operated as DuPont in 2014, but fluoropolymer business spun off to Chemours as of July 1.

Sample Profile & Table, & Study Coverage

TABLE V-1
FLUOROPOLYMER DEMAND BY MARKET
 (million dollars)

Item	2004	2009	2014	2019	2024
Manufacturers' Shipments (bil 2009\$) lb fluoropolymer/mil \$ mfg					
Fluoropolymer Demand (mil lb) \$/lb					
Fluoropolymer Demand					
Industrial Processing					
Electrical & Electronics					
Transportation Equipment					
Construction					
Other Markets					

Source: The Freedonia Group, Inc.

SAMPLE
TABLE

COMPANY PROFILES

Chicago Gasket Company

1285 West North Avenue
 Chicago, IL 60642
 773-486-3060
<http://www.chicago-gasket.com>

SAMPLE
PROFILE

Annual Sales:
 Employment:
 Key Products:
 based components

Chicago Gasket Company is a manufacturer of polytetrafluoroethylene (PTFE), including composites and compounds; and PTFE-based components. The privately held company maintains a production facility in Chicago, Illinois.

The Company is active in the US fluoropolymer market via the production of PTFE and PTFE-based components. Chicago Gasket manufactures high-density, virgin unfilled and filled PTFE for use in the pharmaceutical, chemical, food, and other industries; as well as PTFE composites made by blending PTFE with carbon and graphite, among other materials.

PTFE-based components from the Company include custom machined and custom molded components, as well as gaskets, O-rings, V-rings, and soot blower packing materials. PTFE-based custom machined components are fabricated using Chicago Gasket's basic shapes, which include rods, sheets, tubes, and tapes; while PTFE-based custom molded components are produced via a compression molding process. The Company's PTFE-based gaskets include ring, full face, and corrugated for normal, moderate, and severe service; anti-buildup; anti-static; piping; pharmaceutical; and permeant applications. Chicago Gasket's PTFE O-rings are sold under the MIRROR FINISH brand

STUDY COVERAGE

Fluoropolymers, a Freedonia study, presents historical data (2004, 2009, 2014) plus forecasts (2019, 2024) by product, application and market. The study also considers market environment factors, assesses industry structure, evaluates company market share and profiles 35 competitors in the US fluoropolymer industry.

Related Studies

World Thermoplastic Elastomers

This study analyzes the world TPE industry. It presents historical demand data (2004, 2009 and 2014) and forecasts (2019 and 2024) by market (e.g., motor vehicles; consumer goods; asphalt and roofing; adhesives, sealants and coatings; industrial products), product (e.g., SPCs, thermoplastic polyolefins, POEs, thermoplastic polyurethanes, thermoplastic vulcanizates, copolyester elastomers), world region and major country. The study also considers market environment factors, evaluates company market share and profiles industry players.

#3326..... September 2015.....\$6500

World Silicones

World demand for silicones will rise 5.7 percent annually to \$19.3 billion in 2019. The Asia/Pacific region will continue to be the strongest source of additional silicone demand, with electronics remaining its largest outlet. Construction will be the fastest growing market worldwide, with silicone gels among the fastest growing product types. This study examines the \$14.6 billion world silicones industry, with forecasts for 2019 and 2024 by market and product for 6 world regions and 15 countries. The study also evaluates company market share and profiles industry participants.

#3277..... May 2015.....\$6400

Engineering Plastics

Demand for engineering plastics in the US is expected to rise 2.6 percent per year to 5.1 billion pounds in 2019. Nylon, ABS, and polycarbonate will remain the three largest engineering plastics by volume, with nylon the fastest growing of the three. Smaller-volume engineering plastics such as polyphenylene sulfide, sulfone polymers, and fluoropolymers will grow the fastest. This study analyzes the 4.5 billion pound US engineering plastic industry, with forecasts for 2019 and 2024 by resin and market. The study also evaluates company market share and profiles industry players.

#3242.....April 2015.....\$5300

World Emulsion Polymers

Global demand for emulsion polymers will rise 4.6 percent annually to 12.6 million metric tons in 2018. The Asia/Pacific region will remain the largest and fastest-growing market. The paint and coatings segment will remain the largest and fastest-growing application, followed by adhesives in size and growth rate. This study analyzes the 10 million metric ton world emulsion polymer industry, with forecasts for 2018 and 2023 by market, polymer, world region, and for 16 countries. The study also evaluates company market share and profiles industry participants.

#3216.....October 2014.....\$6200

World Polyethylene

Global polyethylene demand will rise 4.0 percent yearly to 99.6 million metric tons in 2018. The Asia/Pacific region will remain the largest and fastest growing market, driven by China. Following a decade of decline, North America will add nine million tons of production capacity through 2023. This study analyzes the 82 million metric ton world polyethylene industry, with capacity, production and demand forecasts for 2018 and 2023 by product, market, world region, and for 27 countries. The study also evaluates company market share and profiles industry players.

#3210.....October 2014.....\$6200

About The Freedonia Group

The Freedonia Group, Inc., is a leading international industry market research company that provides its clients with information and analysis needed to make informed strategic decisions for their businesses. Studies help clients identify business opportunities, develop strategies, make investment decisions and evaluate opportunities and threats. Freedonia research is designed to deliver unbiased views and reliable outlooks to assist clients in making the right decisions. Freedonia capitalizes on the resources of its proprietary in-house research team of experienced economists, professional analysts, industry researchers and editorial groups. Freedonia covers a diverse group of industries throughout the United States and other world markets. Industries analyzed by Freedonia include:

Automotive & Transport • Chemicals • Construction & Building Products • Consumer Goods • Energy & Petroleum • Industrial Components • Healthcare & Life Sciences • Machinery & Equipment • Metals, Minerals & Glass • Packaging • Plastics & Other Polymers • Security • Services • Textiles & Nonwovens • Water Treatment

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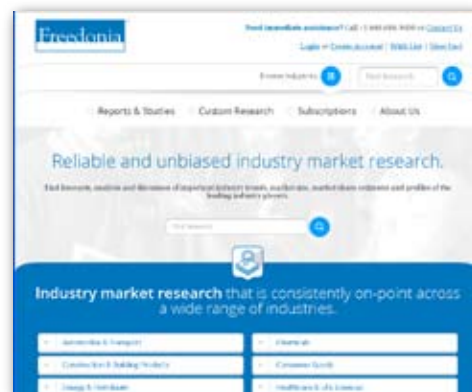
Freedonia Custom Research delivers the same high quality, thorough and unbiased assessment of an industry or market as an industry study. Since the research initiative is based upon a company's specific needs, companies harness Freedonia's research capabilities and resources to answer unique questions. When you leverage the results of a Freedonia Custom Research engagement, you are able to obtain important answers to specific questions and issues associated with: mergers and acquisitions, new product launches/development, geographic expansion, entry into new markets, strategic business planning, and investment and funding decisions.

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