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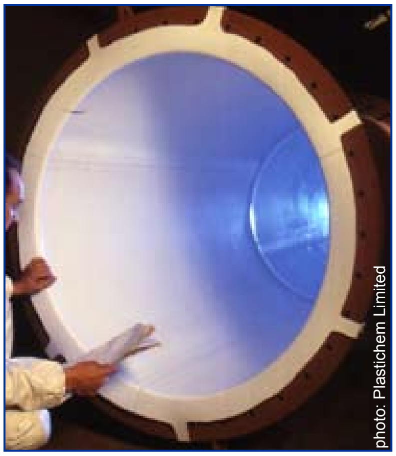

Fluoropolymers

US Industry Study with Forecasts for **2016 & 2021**

Study #2938 | August 2012 | $4900 | 249 pages

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Fluoropolymers

US Industry Study with Forecasts for ***2016 & 2021***

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MARKET ENVIRONMENT

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Advances will be spurred by an improving economic outlook, which will drive industrial output and boost construction activity, and spur volume gains in fluoropolymers considerably.

US demand to rise 5.3% annually through 2016

US demand for fluoropolymers is forecast to increase 5.3 percent annually to $2.4 billion in 2016, with volume totaling 198 million pounds. Advances will be spurred by an improving economic outlook, which will drive industrial output and boost construction activity. While market value gains will only slightly outpace those of the 2006-2011 period, growth in volume terms is projected to accelerate considerably. This is because the challenging economic environment associated with the 2007-2009 recession held down market volume during the 2006-2011 period while strong increases in pricing propped up value gains. Going forward, the situation is expected to reverse, with growth in market value stemming mainly from expanding volume demand, rather than rising price levels.

US Fluoropolymer Demand, 2016
($2.4 billion)

PVF, PVDF to be fastest growing fluoropolymers

Polytetrafluoroethylene (PTFE) is forecast to remain the leading product in both volume and value terms through 2016. Demand will benefit from widespread use in the large industrial processing market and expanding opportunities in emerging applications such as chemical processing and industrial filtration. However, the most robust gains are forecast for polyvinyl fluoride (PVF) and polyvinylidene fluoride (PVDF). PVF demand will rise rapidly from a relatively small base, fueled by stellar growth in the photovoltaic module segment despite greater competition from less expensive materials. PVDF will capture a greater share of the market, advancing strongly through 2016 based on rebounding growth in the architectural coating segment, as well as rising use in electronics, particularly advanced batteries.

Construction among fastest growing markets

The industrial processing market will remain the largest outlet through the forecast period, benefiting from tightening performance requirements, as more advanced materials are needed to withstand increasingly harsh operating conditions. However, faster gains are anticipated in the construction and electrical and electronics markets. Fluoropolymer use in architectural coatings will continue to rise due to the superior performance characteristics these materials possess over competing products. Above average advances in the electrical and electronic market will be fueled by a rebound in electrical and electronic product output overall and wire and cable production in particular, which will be supported by a turnaround in building construction activity. Furthermore, explosive growth in photovoltaic module production will generate opportunities for fluoropolymers as interest in solar power swells due to efforts to reduce dependence on fossil fuels.

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Sample Text, Table & Chart

PRODUCTS

PTFE

Demand for PTFE is proj[...]rly
million in 2016, with market v[...]m
pounds. Although growth in m[...]ce
the rapid pace of the 2006-201[...]n i
tion as the leading fluoropolym[...]olu
Subpar gains will be due in part to market maturity, limited o
ties for penetration into new applications, and competition fr
fluoropolymers. Demand in value terms will also be restricte
trends, as pricing levels become more stable following the si
increases of the latter part of the previous period.

SAMPLE TEXT

During most of the 2006-2011 period, PTFE prices experienced a steady decline. However, the situation abruptly changed in mid-2010 when PTFE prices began to skyrocket. The initial escalation was prompted by the reduced availability of fluorspar, the key raw material in PTFE manufacture. China is the leading producer of fluorspar, and has implemented controls in recent years in order to secure enough supply to meet rapidly rising domestic demand for the material. This has restricted the amount that can be exported to other countries, thus creating a tight supply situation. Moreover, in summer months when Chinese demand for refrigerators and air conditioners spikes, chlorodifluoromethane (R-22) is diverted from PTFE and into refrigerant production, further constraining supply.

Additionally, during much of the decade, lackluster den
low-margin PTFE caused producers to focus their efforts on
profitable specialty fluoropolymers. This reduced PTFE cap
in turn restricted output when demand for the material rose s
lowing the recession. Also contributing to price hikes were l
maintenance shutdowns in China and Europe, as well as in J
ing the March 2011 earthquake that triggered a devastating t

38 Copyright 2012

TABLE III-5

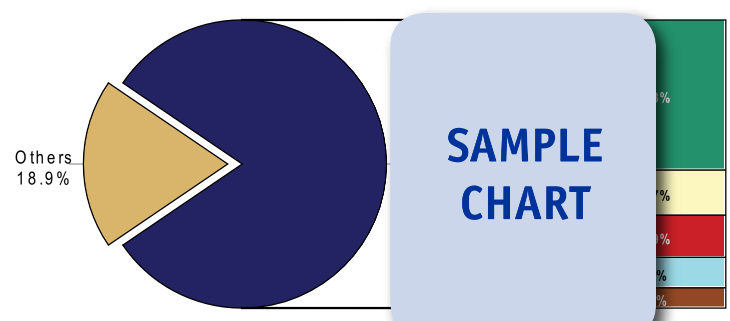
GRANULAR PTFE DEMAND BY APPLICATION & MARKET
(million dollars)

Item	2001	2006	2011	2016	2021
PTFE Demand (mil lb)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
% granular	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Granular PTFE Demand (mil lb)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
$/lb	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Granular PTFE Demand	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
By Application:					
Mechanical Parts & Components	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Coatings & Liners	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Other Applications	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
By Market:					
Industrial Processing	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Other Markets	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

SAMPLE TABLE

CHART VI-1

US FLUOROPOLYMER MARKET SHARE
($1.9 billion, 2011)



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Sample Profile, Table & Forecast

TABLE V-8

ELECTRICAL & ELECTRONIC MARKETS FOR FLUOROPOLYMERS (million dollars)

Item	2001	2006	2011	2016	2021
Electrical & Electronic Prdt Shpts (bil $)					
lb fluoropolymer/mil $ shpts					
E & E Fluoropolymers (mil lb)					
$/lb					
Electrical & Electronic Fluoropolymers					
By Segment:					
Wire & Cable					
Photovoltaic Modules					
Batteries & Fuel Cells					
By Type:					
FEP					
PVF					
PTFE					
Other Fluoropolymers					
% electrical & electronic					
Fluoropolymer Demand					

SAMPLE TABLE

COMPANY PROFILES

Westlake Plastics Company
490 West Lenni Road
Lenni, PA 19052
610-459-1000
http://www.w

Annual Sales
Employment:

Key Products ... lms; and
polytetrafluor

SAMPLE PROFILE

Westlake Plastics extrudes and compresses high performance thermoplastic resins into rods, sheets, and films for the medical, automotive, semiconductor, aerospace, and chemical processing markets. The privately held company has operations at three US plants in Lenni and Mayfield, Pennsylvania and an office in Placentia, California.

The Company participates in the US fluoropolymer market via the manufacture of rods, sheets, and films from such fluoropolymers as HALAR (Solvay SA -- Belgium) ethylene chlorotrifluoroethylene (ECTFE) and KYNAR (Arkema SA -- France) polyvinylidene fluoride (PVDF). Additionally, Westlake Plastics makes DIELUX polytetrafluoroethylene (PTFE) filled acetal copolymers. Westlake Plastics makes HALAR ECTFE based products featuring resistance to chemicals and corrosion; enhanced chemical and mechanical characteristics; optimal impact strength; and extremely low permeability to liquids, gases, and vapors. These products are suitable for semiconductor process equipment, chemical storage, fluid handling, and fire safe componentry applications. The Company also makes HALAR ECTFE based films for such items as filters, diaphragms, release films, cable insulation, solar collector panels, coaxial and fiber optic wrap films, and medical bags.

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"Demand for fluoropolymers in the wire and cable market is forecast to rise 4.5 percent annually to $383 million in 2016, with market volume totaling over 32 million pounds in the same year. Renewed strength in this market will be based on a turnaround in nonresidential construction activity, particularly in the office and commercial sectors, which will generate demand for fluoropolymers used in plenum cable applications. Fluoropolymer consumption will further benefit from trends favoring the use of higher value wire and cable with greater flammability protection."
--Section V, pg. 129

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Other Studies

World Emulsion Polymers

Global demand for emulsion polymers is forecast to rise 5.1 percent per year to 13.3 million metric tons (dry basis) in 2016. In developing nations such as China and India, demand will benefit from strong economic growth and increased penetration of waterborne technology in the coatings and adhesives industry. This study analyzes the $26.1 billion world emulsion polymer industry, with forecasts for 2016 and 2021 by market, polymer, world region and for 15 major countries. The study also evaluates company market share and profiles industry participants.

#2929 .... August 2012 .... $5900

High Performance Composites

US demand for polymer materials containing advanced fiber reinforcements is forecast to rise almost 15 percent per year to $10.2 billion in 2016. Aerospace will remain the dominant and fastest growing market, followed by the energy market. Carbon will continue as the dominant and most rapidly growing fiber, followed by S-glass. This study analyzes the $5.1 billion US high performance composite industry, with forecasts for 2016 and 2021 by fiber, market and resin. The study evaluates company market share and profiles industry players.

#2905 ....June 2012 .... $4900

Silicones

US demand for silicones is forecast to climb 5.6 percent annually to $4.1 billion in 2016. Silicone resins and elastomers will be the fastest growing products, with elastomers overtaking silicone fluids as the largest segment by 2016. The industrial market will remain dominant while the construction segment grows the fastest as it rebounds from previous declines. This study analyzes the $3.1 billion US silicone industry, with forecasts for 2016 and 2021 by product, market and application. It also evaluates company market share and profiles industry players.

#2879 ....April 2012 .... $4900

World Rubber

Global rubber consumption is forecast to rise 4.3 percent annually through 2015 to 30.5 million metric tons, driven by increasing tire output as global motor vehicle production accelerates from a weak base. The Asia/Pacific market will remain dominant and grow the fastest. Non-tire rubber sales will outpace growth in tire rubber sales. This study analyzes the 24.8 million metric ton world rubber industry, with forecasts for 2015 and 2020 by market, world region and for 30 countries. The study also evaluates company market shares and profiles industry players.

#2843 .... March 2012................... $5800

World Thermoplastic Elastomers

Global demand for thermoplastic elastomers (TPEs) will rise 6.3 percent annually through 2015. Gains will be driven by rebounding motor vehicle production in the US and Western Europe. Advances will also be fueled by the rising use of TPEs in the developing countries, where these materials are continuing to penetrate new applications. This study analyzes the 4.1 million metric ton world TPE industry, with forecasts for 2015 and 2020 by market, product, world region and for 15 countries. The study also evaluates company market share and profiles industry players.

#2803 .... September 2011................ $6400

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