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# Specialty Films

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

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Study #3287 | August 2015 | \$5200 | 311 pages

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*Gains will be fueled by the rising need for high-value, technologically advanced materials that provide barrier properties, controlled permeability, light control, and electrical conductivity or resistivity.*

## US demand to rise 4.8% annually through 2019

US demand for specialty films is forecast to rise 4.8 percent per year to \$8.4 billion in 2019. Gains will be fueled by the rising need for high-value, technologically advanced materials that provide characteristics such as barrier properties, controlled permeability, light control, and electrical conductivity or resistivity. A healthy outlook for the packaging industry, where the majority of specialty films are used, will boost demand, as will a rebound in construction. Additionally, advances will result from the development of new applications in degradable packaging and fuel cells, and robust growth in emerging markets such as advanced batteries.

## Biodegradable & water soluble films to pace gains

Barrier films accounted for 65 percent of specialty films demand in 2014. Through 2019, advances will be driven by growing barrier requirements in the packaging industry to better protect food, pharmaceuticals, and other products. The most rapid gains, however, will be found in biodegradable and water soluble films, as improved technology and consumer acceptance allow these films to penetrate new applications. Above average growth is also forecast for light control and safety and security films, fueled by stronger building construction activity. Among the resins used in specialty films, polyolefins will continue to account for most demand. Fastest growth is forecast

## US Specialty Films Demand, 2019 (\$8.4 billion)



for fluoropolymer films, polyester films, and smaller volume resins such as biodegradable plastics.

## Construction to be fastest growing market

The best opportunities for growth in the dominant packaging market include meat packaging, where technologies such as modified atmosphere packaging and vacuum skin packaging require the use of high-barrier films, and pharmaceutical and medical packaging, where protection from contamination is a critical factor. Food packaging opportunities will spur advances for films produced from ethylene vinyl alcohol, nylon, and polyvinylidene chloride resins. Demand

will also benefit from growing use of specialty barrier films in pharmaceutical blister packaging applications, particularly fluoropolymer and nylon films in multilayer constructions.

The fastest gains are expected in the construction market, where specialty films will benefit from the construction industry rebound and the rising use of energy saving window films. Electronics will also be a strong growth market for films, particularly in the areas of advanced batteries and photovoltaic modules. Below average advances, however, are forecast for personal care products, as use of breathable films is highly mature in the slow-growing disposable hygiene products market.

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## Sample Text, Table & Chart

### FUNCTIONS

#### Moisture Barrier Films

Consumption of specialty moisture barrier films is projected to increase by 1.5 million in 2019. Packaging leading to 2019, reflecting an increase toward more value-added packaging products, particularly in the food and pharmaceutical sectors. However, faster the near-term demand for barrier film products for construction is expected to prevent the entry into building construction. Demand for building vapor films is expected to grow at a healthy pace through 2019, reflecting improvement in building construction activity. In particular, building activity is forecast to rebound from its 2014 low. Greater use of barrier films in renovation applications will also boost growth in demand.

In packaging, moisture barrier films are often used in large structures that combine resins with a thin layer of a specialty barrier film in pouch, bag, and tube constructions. A number of films function as moisture barrier products, including polyolefin, polyester, and fluoropolymer films. Dry chemicals (such as granulated lawn and garden chemicals), dry pet foods, dry foods (such as cereals and cake mixes), medical products, and electronic components are frequently packaged in barrier films to prevent spoilage or damage.

In food packaging applications, moisture barrier films used include high density polyethylene and polyvinylidene chloride. The latter has very high moisture barrier properties, although the former is less expensive and tends to be used more frequently. In addition, packages that pair polypropylene or polyester films with polyolefin copolymer barrier layers are also widely used. Gains in packaging moisture barrier films will derive from expanded

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SAMPLE  
TEXT

TABLE V-3

PACKAGING MARKETS FOR SPECIALTY FILMS  
(million dollars)

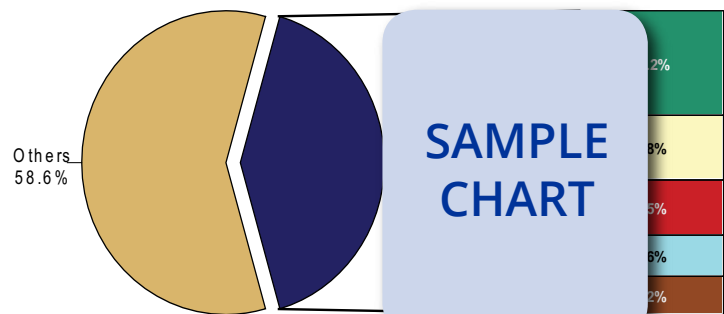
Item	2004	2009	2014	2019	2024
Packaging Shipments (bil \$)					
\$ films/000\$ pkg					
Specialty Packaging Films Demand					
By Segment:					
Food Packaging					
Meat, Poultry, & Seafood					
Snacks					
Produce					
Other Food					
Nonfood Packaging					
Pharmaceutical & Medical					
Other Nonfood					
By Function:					
Barrier Films					
Microporous Films					
Other Products					
% packaging					
Specialty Films Demand	4.3%	5.1%	6.0%	6.8%	7.6%

SAMPLE  
TABLE

Source: The Freedonia Group, Inc.

CHART VI-1

US SPECIALTY FILMS MARKET SHARE, 2014  
(\$6.7 billion)



SAMPLE  
CHART

## Sample Profile & Table, & Study Coverage

**TABLE IV-1**  
**SPECIALTY FILMS DEMAND BY RESIN**  
 (million dollars)

Item	2004	2009	2014	2019	2024
Manufacturers' Shipments (bil \$) \$ films/000\$ mfg					
Specialty Films Demand					
Polyolefins					
Polyester					
Nylon					
Ethylene Vinyl Alcohol					
Polyvinyl Butyral					
Polyvinylidene Chloride					
Fluoropolymer					
Other Films					

Source: The Freedonia Group, Inc.

SAMPLE  
PROFILE

STUDY  
COVERAGE

This Freedonia study, *Specialty Films*, presents historical demand data (2004, 2009, 2014) as well as forecasts (2019, 2024) by function, resin and market. The study also considers key market environment factors, examines the industry structure, evaluates company market share and profiles 44 US industry competitors.

**COMPANY PROFILES**

**Chemours Company**  
 1007 Market Street  
 Wilmington, DE 19898  
 302-773-  
 http://wv

Sales: \$  
 Employr

Key Pro fluoroalkoxy, and  
 ethylene

Chemours is a leading global producer of titanium technologies, fluoroproducts, and chemicals. The Company was created in July 2015 when DuPont (EI) de Nemours (Wilmington, Delaware) spun off its former Performance Chemicals segment into a separate publicly traded firm. Chemours operates through three main businesses: Titanium Technologies, Fluoroproducts, and Chemical Solutions.

The Company is active in the US specialty films industry via the Fluoroproducts business, which generated 2014 sales of \$2.3 billion. In 2014, North America accounted for 45 percent, or about \$1.0 billion, of the business' sales. The Fluoroproducts business manufactures a range of fluoropolymers, fluorochemicals, fluoroelastomers, and related fluoroproducts for the wire and cable, electronics, telecommunications, refrigeration, automotive, aerospace, and other markets. Among the business' fluoropolymer offerings are such specialty films as TEFLON fluorinated ethylene propylene (FEP) and perfluoroalkoxy (PFA), and TEFZEL ethylene tetrafluoroethylene (ETFE) types. In 2014, fluoropolymers accounted for 57 percent, or about \$1.3 billion, of the Fluoroproducts business' total sales.

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## Related Studies

### World Battery Materials

This study analyzes the world battery material industry. It presents historical demand data (2004, 2009 and 2014) and forecasts (2019 and 2024) by battery material type (e.g., metals, chemicals, carbon/graphite, polymers) and application (primary batteries, secondary batteries) by world region and major country. The study also considers market environment factors, details industry structure, evaluates company market share and profiles industry players.

#3329.....November 2015.....\$6200

### Active & Intelligent Packaging

This study analyzes the US active and intelligent packaging industry. It presents historical demand data (2004, 2009 and 2014) and forecasts (2019 and 2024) by product (e.g., gas scavengers, corrosion control packaging, desiccants, suscepter packaging, color indicator packaging, time-temperature indicators) and market (e.g., food, beverages, pharmaceuticals, primary metals, motor vehicles, electronics). The study also considers market environment factors, details industry structure, evaluates company market share and profiles industry players.

#3338.....October 2015.....\$5300

### World Membrane Separation Technologies

World demand for membranes will rise 8.5 percent annually to \$26.3 billion in 2019. Industrializing countries such as India, China, Russia, Poland, and Brazil will show strong growth, while developed areas will remain intensive membrane users. Reverse osmosis, ultrafiltration, and nanofiltration will see above average growth. This study analyzes the \$17.5 billion global membrane industry, with forecasts for 2019 and 2024 by product and market for six world regions and 21 major countries. The study also evaluates company market share and profiles industry players.

#3325.....September 2015.....\$6500

### Membrane Separation Technologies

US membrane demand will rise 7.9 percent per year through 2018 to \$6.2 billion. Microfiltration will remain the largest category, while the second largest type, reverse osmosis membranes, will post faster gains. The municipal water treatment market will be driven by replacement demand and desalination plants. The drug/medical and chemical markets will grow the fastest. This study analyzes the \$4.2 billion US membrane industry, with forecasts for 2018 and 2023 by material, type and market. The study also evaluates company market share and profiles industry players.

#3219.....November 2014.....\$5300

### Battery & Fuel Cell Materials

US demand for battery and fuel cell materials is expected to grow 4.3 percent annually through 2017 to \$6.1 billion. Polymers, metals and other materials will lead gains. Material usage in secondary batteries will outpace primary batteries, while fuel cells will be the fastest growing application overall from a small base. This study analyzes the \$4.9 billion US battery and fuel cell material industry, with forecasts for 2017 and 2022 by type, function and application. The study also evaluates company market share and profiles industry players.

#3115.....January 2014.....\$5100

## About The Freedonia Group

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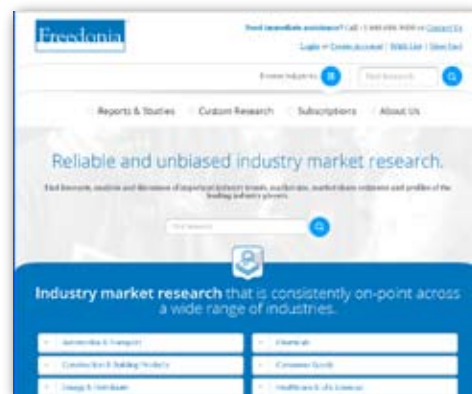
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