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Protective Packaging

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

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INDUSTRY STRUCTURE

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Demand for protective packaging will benefit from strengthening Internet sales, using environmentally friendly materials like air pillows, paper fill products and custom boxes.

US demand to grow nearly 5% per year through 2019

Demand for protective packaging in the US is forecast to expand 4.9 percent per year to \$6.8 billion in 2019, bolstered by strong gains in Internet shopping. As consumers purchase more products on-line, demand will increase for packaging which can protect these goods from shock, vibration, abrasion, and other damaging effects of shipping and handling. Continued growth in manufacturing markets and acceleration in construction spending will also support increases for protective packaging, although gains will moderate from those during the 2009-2014 period.

Environmental concerns, Internet sales to change business model

The fulfillment of e-commerce sales will be the main driver of growth for protective packaging, supporting gains for products such as air pillows and protective mailers, which are used by various participants in the Internet shopping market. Large online retailers often use automated packaging machines to integrate inflated air pillows as a void fill material, while small businesses or entrepreneurs without access to major distribution and shipping facilities often use protective mailers, as these products are usually less costly to purchase and ship than rigid boxes. The burgeoning Internet-based grocery and meal-kit delivery market will support gains for products made from environmentally sustainable insulating products, such as reusable vacuum insulated panels and jute, as firms try to make their business as environmentally friendly as possible.

US Protective Packaging Demand (\$6.8 billion, 2019)



Flexible

Foam

Rigid

Environmental concerns will bring about a number of changes for protective packaging, primarily for goods delivered directly to consumers. For example, foam loose fill is being supplanted by air pillows and paper fill products in part due to concerns that foam is harmful to the environment. Likewise, the desire to reduce packaging weight and bulk has led to the introduction of packaging that is customized to the specific product. Custom boxes not only cut down on shipping costs, but can also serve as a marketing tool as firms look for ways to make shipping containers as aesthetically pleasing as display packaging. In manufacturing markets, environmental concerns will result in molded foams losing some share to molded pulp products for the shipment of both non-durable and durable goods. However, foam's entrenched position in these

markets will help to sustain its growth for some time.

Flexible packaging products, including protective mailers, bubble packaging, air pillows, paper fill products, and dunnage bags, will continue to dominate due to their cost efficiency and their ability to package a wide variety of goods. Foam protective packaging will comprise the second largest share of total demand, with established applications in manufacturing markets providing growth opportunities despite competition from rigid and flexible materials with more favorable environmental profiles. Foam products include insulated shipping containers, molded foams, foam-in-place polyurethane, rolled foam, and loose fill. Rigid protective packaging products account for the smallest portion of total demand.

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Sample Text, Table & Chart

FLEXIBLE PROTECTIVE PACKAGING

Paper Fill

Demand for paper fill materials in protective packaging to increase 2.1% in 2019, signifi- cantly below the 2014-2019 average. Slow growth is due to disadvantages of loose fill, and bubble wrap in terms of weight and costs. Value increases can be held back by price increases for raw materials. The product has a very friendly profile of price gains. Advantages of paper fill systems include cost-competitiveness, ease of use, and good performance against shock, deformation, and breakage. Paper fill products are reusable, compostable, and can be recycled along with other materials such as boxes and newspapers. Additionally, paper fill has low space requirements since it is generally produced on demand by users.

Paper fill products employ kraft and other paper types to serve void fill, cushioning, and wrapping functions. Sheets of kraft paper can be mechanically crumpled for wrapping products, or rolled into a coil to use as void fill or bracing material. Layers of paper can also be crimped together on proprietary machinery which forms the paper into pads for cushioning. The rigidity of the packaging can be altered by changing the basis weight of the paper. Cushioning can be provided for items ranging from fragile glassware and precision electronics to heavy machinery and automotive components. Kraft paper in paper fill packaging can also be reused or recycled upon removal. The segment also includes embossed kraft papers and creped cellulose wadding materials. Additionally, paperboard- and kraft paper-based loose fill products have been popular in recent years, offering a nonplastic alternative to expanded polystyrene and biodegradable foam loose fill.

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TABLE V-2

INSULATED SHIPPING CONTAINER DEMAND BY APPLICATION & MARKET (million dollars)

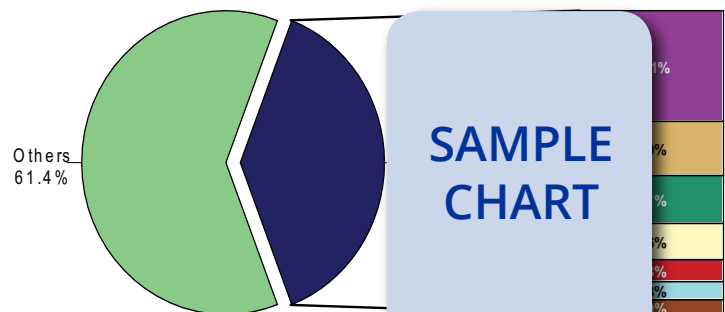
Item	2004	2009	2014	2019	2024
Foam Protective Packaging Demand % insulated shipping containers					
Insulated Shipping Containers By Application:					
Pharmaceutical & Medical					
Food					
Other					
By Market:					
Nondurable Goods					
All Other					
\$/lb					
Insulated Shipping Containers (mil lbs)					

SAMPLE TABLE

Source: The Freedonia Group, Inc.

CHART VII-1

US PROTECTIVE PACKAGING MARKET SHARE, 2014 (\$5.4 billion)



SAMPLE CHART

Sample Profile & Table, & Study Coverage

TABLE VI-2
PAPERBOARD PROTECTOR DEMAND BY MARKET
 (million dollars)

Item	2004	2009	2014	2019	2024
Rigid Protective Packaging Demand % paperboard protectors					
Paperboard Protector Demand					
Durable Goods					
Nondurable Goods					
All Other					
\$/lb					
Paperboard Protector Demand (mil lbs)					

Source: The Freedonia Group, Inc.

SAMPLE
TABLE

COMPANY PROFILES

Polar Tech Industries Incorporated

415 East Railroad Avenue
 Genoa, IL 60135
 815-784-9000
 www.polar-te

Annual Sales:
 Employment:

Key Products: refrigerants, edge and corn

SAMPLE
PROFILE

Polar Tech Industries is a privately held producer and distributor of temperature-sensitive packaging products. The Company primarily serves the US East Coast through manufacturing and distribution facilities in Genoa, Illinois and Elysburg, Pennsylvania.

The Company competes in the US protective packaging industry through the manufacture of insulated shipping containers and related refrigerants, edge and corner protectors, bubble material, and mailers. Insulated shipping containers from Polar Tech include those sold under the THERMO CHILL brand name that feature seamless, molded expanded polystyrene (EPS) bodies and tight-fitting lids. Among the products in the THERMO CHILL line are POLAR EXPRESS containers designed for two- or three-day transit, OVERNITE light-weight types that are suitable for overnight or two-day shipments, and NESTABLE models that have enhanced internal product cooling properties and a stackable configuration. Polar Tech's THERMO CHILL product line also includes the following products: double-walled transport/storage chests, which are made with high-impact plastic and filled with polyurethane foam; SPACE SAVER KIT containers, which are stored flat and consist of corrugated carton, six EPS panels, and a

250

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STUDY
COVERAGE

This Freedonia study, *Protective Packaging*, presents historical US demand data (2004, 2009, 2014) as well as forecasts (2019, 2024) for flexible products, plastic foam products, and rigid products. Protective packaging is also reviewed by material, function and market. In addition, this study considers market environment factors, assesses the industry structure, evaluates company market share data and profiles 44 US industry competitors.

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Related Studies

World Corrugated Boxes

World demand for corrugated boxes is expected to increase 3.7 percent annually through 2019, to 260 billion square meters. Gains will be driven by strong growth in e-commerce and a sustainability advantage over plastic containers. The Asia/Pacific region will account for the largest share of net growth. This study analyzes the 217 billion square meter world corrugated box industry, with forecasts for 2019 and 2024 by raw material and market for six world regions and 27 major countries. The study also evaluates company market share and profiles industry players.
#3339.....November 2015.....\$6400

Produce Packaging

Demand for produce packaging in the US is forecast to increase 3.2 percent annually to \$6.0 billion in 2019. Plastic containers and stand-up pouches will be among the fastest growing package formats, based on their aesthetic appeal and capability to increase brand marketing and recognition. Corrugated boxes will remain the leading type. This study analyzes the \$5.1 billion US produce packaging industry, with forecasts for 2019 and 2024 by packaging type, application and end user. The study also evaluates company market share and profiles industry players.
#3319.....August 2015.....\$5300

Stretch & Shrink Film

US demand for stretch and shrink film will rise 3.5 percent yearly to \$3.1 billion in 2019. Shrink film will outpace the larger stretch film segment based on the former's improvements in strength and customizability. Stretch hoods used in storage and distribution will pace the stretch films segment based on their edge in pallet wrapping. This study analyzes the \$2.6 billion US stretch and shrink film industry, with forecasts for 2019 and 2024 by type, market, application, and resin. The study also evaluates company market share, and profiles industry players.
#3262.....April 2015.....\$5100

Plastic Film

US demand for plastic film will grow 1.5 percent per year through 2018 to 15.4 billion pounds, valued at \$24.9 billion. Linear low density polyethylene will remain the most common film resin and maintain solid growth, while polypropylene and other resins such as degradable types will outpace it from smaller bases. The food packaging market will exhibit the fastest gains. This study analyzes the 14.3 billion pound US plastic film industry, with forecasts for 2018 and 2023 by resin and market. The study also evaluates company market share and profiles industry players.
#3243.....January 2015.....\$5300

World Protective Packaging

World demand for protective packaging will rise 6.1 percent annually to nearly \$27 billion in 2018. The Asia/Pacific region will see the fastest gains. The on-line retail market will continue to grow rapidly from a small base and boost the whole retail segment, while manufacturing remains the dominant market. This study analyzes the \$20 billion world protective packaging industry, with forecasts for 2018 and 2023 by product, material, function, market, world region, and for 24 countries. The study also evaluates company market share and profiles industry participants.
#3215.....October 2014.....\$6300

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:

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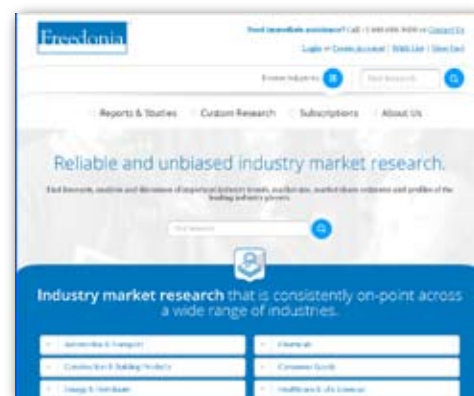
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