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Active & Intelligent Packaging

US Industry Study with Forecasts for **2013 & 2018**

Study #2515 | July 2009 | \$4700 | 261 pages

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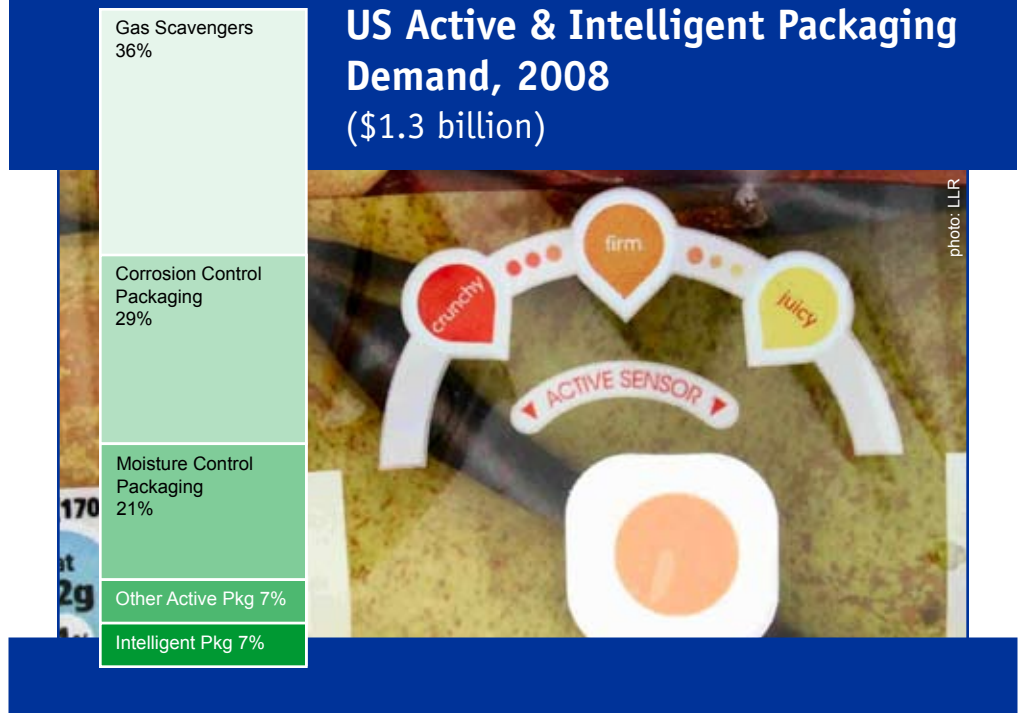
Increased concerns over food safety and losses in perishables will spur requirements for more sophisticated packaging to extend the shelf life or enhance traceability of packaged goods.

US demand to climb 8.3% annually through 2013

Demand for active and intelligent packaging is projected to climb 8.3 percent annually to \$1.9 billion in 2013, well above the overall packaging industry. Rapid advances will be fueled by the availability of products with more reasonable price points and those offering improved performance compared to earlier generation counterparts. Moreover, increased concerns over food safety and the need to minimize losses in perishables will spur requirements for more sophisticated packaging to extend the shelf life or enhance traceability of food, beverages, pharmaceuticals and other packaged goods.

Intelligent packaging to be fastest growing type

Growth for intelligent packaging will be significantly faster and will be propelled by robust gains for time-temperature indicators (TTIs) and the emergence of other smart packaging systems offering product differentiation (e.g., color changing labels), traceability or various interactive features at more cost-competitive prices. Solid prospects for TTIs will also be based on greater use of electronic indicators. Preventing faster growth for intelligent packaging will be the reluctance of brand owners and food retailers to replace existing freshness identification systems.



Gas scavengers best prospects in active packaging

Active packaging demand is forecast to advance 7.1 percent per year to \$1.7 billion in 2013, paced by faster gains for gas scavengers, the result of expanded applications for oxygen scavengers in food, beverage and pharmaceutical packaging. Solid growth for oxygen scavenger bottles will be based on heightened demand for less costly monolayer oxygen scavenger systems, which will drive usage with single-serving bottles for beverages such as hot-fill juices and teas. Some degree of conversion from glass to PET in oxygen-sensitive beverages like wine is also

anticipated as part of efforts to make packaging more green. Preventing faster gains will be competition from passive in-resin barrier systems for bottles, and standard packaging films enhanced with barrier coatings. Moisture control and corrosion control packaging demand will increase more slowly based on the presence of more mature product types and applications. Double-digit gains from a relatively low base are expected for other types of active packaging, such as antimicrobial packaging, flavor and fragrance control packaging, and self-venting packaging. Opportunities will arise from the ability to improve food quality and/or create product differentiation.

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Sample Text, Table & Chart

PRODUCTS

Oxygen -- Demand for oxygen scavengers in packaging to expand to \$5 million in 2013. Growth will be fueled by higher barrier PET bottles in application packaged products such as case-ready meats and organic. The increase in production and reducing transportation costs will also drive some applications such as...

SAMPLE TEXT

Above-average growth is expected in the food market and smaller markets such as pharmaceuticals and cosmetics and... Other smaller markets for oxygen scavengers include diagnostic tests, medical instruments and disposable DVDs. Food applications will be aided by growing demand for organic foods and case-ready meats, as such foods tend to be shipped over far distances due to packaging in central processing facilities. The use of oxygen absorbers provides increased distribution flexibility for such goods without the need for traditional preservatives. However, oxygen absorber demand will be dampened somewhat by more moderate expansion for organic foods as consumers hold back on spending for nonessentials.

Food opportunities will also be driven by the shift away from trans fatty acids in packaged foods. While the elimination of trans fats improves the nutritional profile of many foods, foods that are made without trans fats can spoil or discolor more quickly than foods containing trans fats, a factor that will bode well for oxygen absorbers. Constraining growth in food applications will be the higher cost of barrier PET food containers in smaller sizes versus their glass counterparts. Barrier PET food container applications that are candidates for oxygen scavenger systems encompass pasta sauce, salsa, apple sauce, and jams and jellies. In-package oxygen scavenger products used in food packaging include Mitsubishi Gas Chemical's (MGC) AGELESS oxygen-absorbers

TABLE III-11

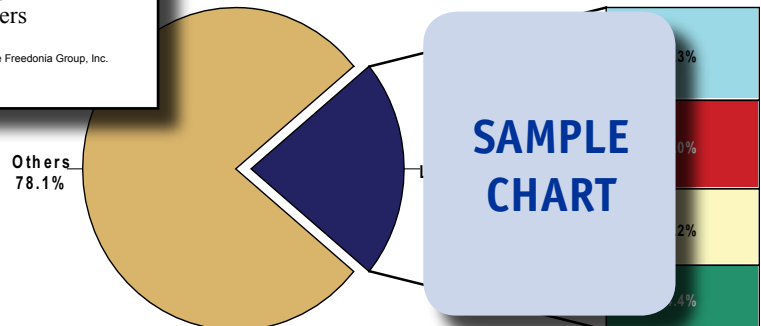
MOISTURE CONTROL PACKAGING DEMAND BY TYPE & MARKET (million dollars)

Item	1998	2003	2008	2013	2018
Total Active Packaging Demand % moisture control					
Moisture Control Packaging Demand					
By Type:					
Desiccants					
Other					
By Market:					
Food					
Pharmaceuticals					
Electronics					
Other					

SAMPLE TABLE

CHART V-1

ACTIVE & INTELLIGENT PACKAGING MARKET SHARE, 2008 (\$1.3 billion)

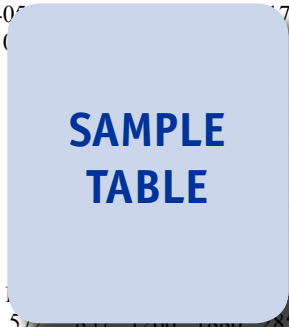


SAMPLE CHART

Sample Profile, Table & Forecast

TABLE IV-3
FOOD MARKET FOR ACTIVE & INTELLIGENT PACKAGING
 (million dollars)

Item	1998	2003	2008	2013	2018
Food Shipments (bil \$)	405	450	500	550	600
\$ pkg/000\$ food	0.05	0.06	0.07	0.08	0.09
Food Active & Intelligent Pkg Demand					70
Meat, Poultry & Seafood					52
Processed Foods					98
Produce					99
Dairy Products					53
Other					38
% food	0.001	0.001	0.001	0.001	0.001
Total Active & Intelligent Packaging	572	637	720	800	850



COMPANY PROFILES

Cortec Corporation
 4119 White Bear Parkway
 St. Paul, MN 55110
 651-429-1100
 http://www.cortec.com

Annual Sales:
 Employment:

Key Products: ... for technology

Cortec Corporation is an environmentally friendly corrosion protection technology for metal products. The Company operates through several divisions and businesses, including the Advanced Films, Coated Products and Spray Technologies divisions.

The Company is active in the US active and intelligent packaging industry through the Advanced Films division (Cambridge, Minnesota), which maintains a plant in Cambridge, Minnesota. Through this division, Cortec manufactures a range of high-performance, custom, flexible polyethylene films and bags. These products can incorporate the Company's proprietary VPCI vapor phase corrosion inhibitor technology. Packaging with VPCI technology is used to protect ferrous and nonferrous metals. In the package, the corrosion inhibitor migrates to all of the recessed areas and cavities around the metal to provide a protective layer. When the package is removed, this barrier coating can be removed with conventional cleaning methods. Cortec's VPCI technology is used in the production of papers, films, bubble packaging and inserts. Specific products include CORTEC VPCI papers; VPCI-125 films, which also incorporate desiccants and antistatic properties;

SAMPLE PROFILE

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"Demand for active and intelligent packaging in the food market is projected to increase 11.3 percent per year to \$590 million in 2013, driven by heightened requirements for longer shelf life for processed foods and packaged fresh foods. Continued growth for organic foods, in-store prepared foods and other foods containing fewer or no preservatives will propel opportunities for oxygen scavengers as a means of protecting such foods from spoilage. Additional factors that will drive advances include ..."

--Section IV, pg. 111

OTHER STUDIES

Meat, Poultry & Seafood Packaging

US demand for meat, poultry and seafood packaging is forecast to grow 3.5% yearly through 2013. Gains will be driven in part by the continuing shift to higher cost case-ready packaging by many retailers as a means to reduce in-store labor costs. Flexible packaging will outpace the larger rigid packaging segment. This study analyzes the \$7.7 billion US meat packaging industry, with forecasts for 2013 and 2018 by technology and raw material, product, application and market. It also evaluates market share and profiles industry players.

#2522 06/2009..... \$4700

World Pharmaceutical Packaging

World drug packaging demand will grow 6.3% yearly through 2013. Developed countries will continue to dominate demand while China, India and Brazil are among the fastest growing. Prefillable inhalers and syringes offer the best growth opportunities, while plastic bottles will remain the largest segment. This study analyzes the \$46 billion world drug packaging industry, with forecasts for 2013 and 2018 by material, product, world region and for 14 countries. It also evaluates market share and profiles industry players.

#2504 06/2009..... \$6100

Food Containers: Rigid & Flexible

US food container demand will reach \$25 billion in 2013. Unit expansion will be aided by the growing popularity of single-serving packaging in a widening range of applications. Plastic containers, and bags and pouches will see the fastest growth, often supplanting paperboard, metal and glass containers. This study analyzes the \$22 billion US rigid and flexible food container industry, with forecasts for 2013 and 2018 by type and market. It also evaluates company market share and profiles industry competitors.

#2492 05/2009..... \$4800

Sterile Medical Packaging

US demand for sterile medical packaging will rise 6.1% yearly through 2012. Prefillable syringes and inhalers and vials and ampuls will be the fastest growing segments based on their use in newly commercialized biotech drugs. Plastic resins will remain the fastest growing material in both volume and value demand. This study analyzes the \$4.8 billion US sterile medical packaging industry, with forecasts for 2012 and 2017 by product, material and application. It also evaluates company market share and profiles industry players.

#2405 09/2008..... \$4600

Produce Packaging

US produce packaging demand will rise 4.2% yearly through 2012. Corrugated boxes will stay the top segment, driven by a shift toward more costly types (e.g., modular, lined, moisture-resistant recyclable). Plastic containers will grow the fastest based in part on the expanding use of clamshells and bowls in ready-to-eat, fresh-cut produce. This study analyzes the \$3.8 billion US produce packaging industry, with forecasts for 2012 and 2017 by type, application and end user. It also evaluates market share and profiles industry players.

#2388 08/2008..... \$4600

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