



World Pharmaceutical Packaging

Industry Study with Forecasts for **2011 & 2016**

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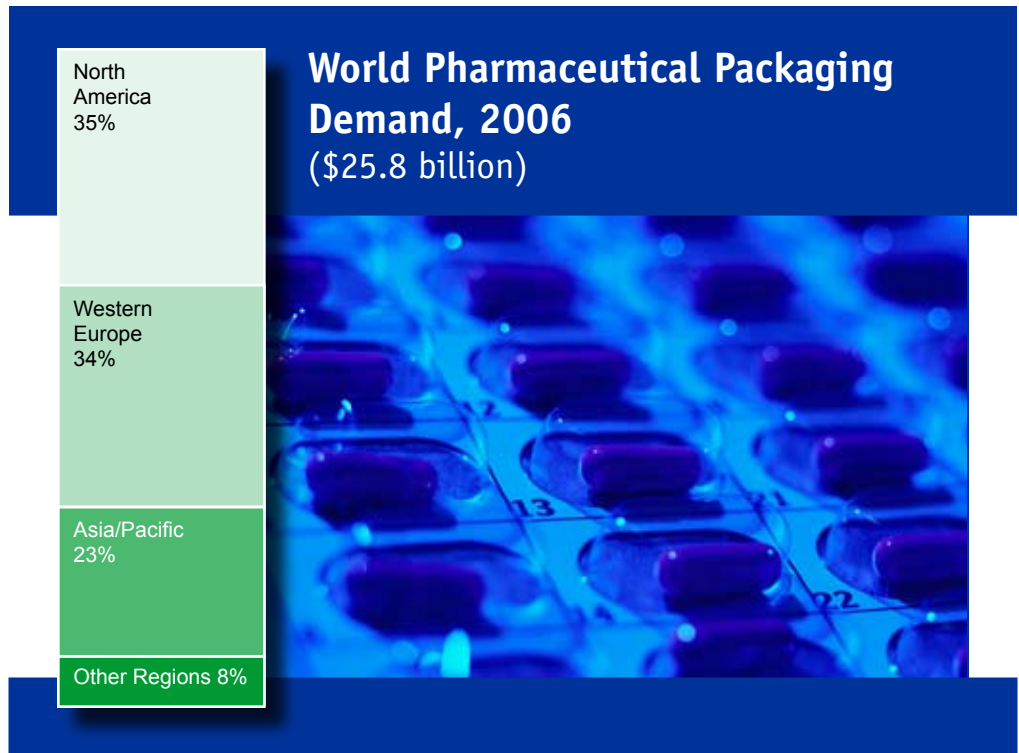
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China will offer the best growth prospects based on rapidly expanding drug producing capabilities and by new government efforts to upgrade the quality and integrity of Chinese medicines.

Global demand to rise 5.9% yearly through 2011

World pharmaceutical packaging demand is projected to increase 5.9 percent annually to over \$34 billion in 2011. The developed countries of Western Europe, the US and Japan will continue to account for nearly three-fourths of this amount. However, China will provide the strongest growth opportunities based on rapidly expanding pharmaceutical manufacturing capabilities and the phasing-in of an extensive government program designed to upgrade the quality and integrity of nationally produced medicines. Among other major developing economies, India and Brazil will also evolve into fast-growing pharmaceutical packaging markets as drug-producing sectors are upgraded and diversified, especially in the area of generic ethical drugs.

The US will remain the largest consumer of pharmaceutical packaging as its advanced drug-producing sector introduces new sophisticated therapies with specialized packaging needs. Growth in West European demand will reflect upgraded government standards requiring unit dose, high barrier and anti-counterfeit packaging for many types of medication. An easing of government-imposed drug price controls, along with increasing export market penetration, will impact favorably on sales of pharmaceutical packaging in Japan, with demand rebounding from the depressed market conditions of the past half decade.



Prefillable inhalers, syringes to lead gains

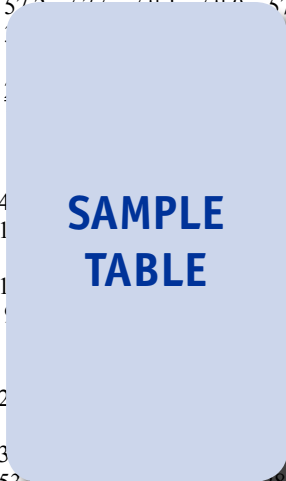
World demand for primary pharmaceutical containers will increase 6.5 percent annually through 2011 to nearly \$24 billion. Prefillable inhalers and prefillable syringes will generate the fastest growth opportunities among all pharmaceutical packaging products based on performance advantages in drug delivery and the introduction of new bioengineered medicines. Plastic bottles will sustain the largest share of global demand based on low cost, versatility, availability, and ongoing quality and design improvements. Expanding applications in both solid and liquid oral medications will create above average growth opportuni-

ties for these containers, especially in the US and developing countries. Pharmaceutical blister packaging will generate favorable growth in global demand based on adaptability to unit dose, clinical trial, compliance, institutional and over-the-counter drugs. Advances in the changeover features of processing machinery will also benefit growth by making blister packaging more cost-efficient in small-volume drug applications. Equipment upgrades, coupled with trends favoring unit dose packaging, will also boost demand for pouches and strip packs. By contrast, the world market for medication tubes will expand at a below average pace due to competition from pouches and plastic dispensing bottles.

Sample Profile, Table & Forecast

TABLE VI-7
ITALY - PHARMACEUTICAL PACKAGING INDICATORS

Item	1996	2001	2006	2011	2016
Population (million)	57.2	57.5	58.1	58.9	57.7
% 50 years & older	21.7	22.1	22.5	22.9	23.3
Population 50 Years & Older (million)	12.4	12.7	13.1	13.5	13.8
50 to 64 Years	7.5	7.6	7.7	7.8	7.9
65 Years & Older	4.9	5.1	5.4	5.7	5.9
per capita GDP	24,000	24,500	25,000	25,500	26,000
Gross Domestic Product (bil 2005\$)	1,360	1,400	1,440	1,480	1,520
\$ health expend/capita	1,000	1,050	1,100	1,150	1,200
Health Expenditures (billion \$)	136	147	158	167	174
\$ pharmaceuticals/capita	82	85	88	91	94
Pharmaceutical Demand (million\$)	12,000	12,500	13,000	13,500	14,000
net exports	300	350	400	450	500
Pharmaceutical Shipments (million\$)	153,700	154,400	155,100	155,800	156,500



COMPANY PROFILES

Tekni-Plex Incorporated
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 Coppell, TX 75019
 972-304-5077
 http://www.tekni-plex.com

Revenues: \$1.6 billion in 2006
 Geographic Breakdown: US 86%, Canada 14%
 2%, and Belgium 2%
 Employment: 1,200

Key Products: Tubing, syringes, rubber stoppers

Tekni-Plex is a privately held, diversified manufacturer serving the health care, consumer and food packaging industries. It operates in three industry segments: Tubing Products, Packaging and Other.

Tekni-Plex is active in the world pharmaceutical packaging market via the Tekni-Films, Tri-Seal and American Gasket & Rubber Company (AGR) subsidiaries, which operate as part of the \$374 million Packaging segment. Among other items, these subsidiaries manufacture blister packaging films, cap liners, seals and rubber stoppers. Tekni-Plex is the leading producer of laminated, clear, high-barrier pharmaceutical blister packaging; and multilayered, coextruded and laminated closure liners for the US market.

Tekni-Films -- The Tekni-Films subsidiary (Somerville, New Jersey) makes high-barrier pharmaceutical and other blister packaging films, and top- and bottom-web lidding foils. The company's high-barrier pharmaceutical blister packaging films are composed of polyvinyl chloride (PVC), cyclic olefin polymer, cyclic olefin copolymer (COC), polyvinylidene chloride (PVDC), and VAPORSHIELD (Tekni-Plex)

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“Infection prevention and response time advantages over alternative hypodermic systems, coupled with the increasing availability of injectable drugs and vaccines based on biotechnology, will impact favorably on growth opportunities for prefilled syringes. World demand for these devices (excluding the cost of medication) will expand 8.8 percent annually to \$1.6 billion in 2011. Prefilled cartridges adaptable to reusable injectors will continue to account for most unit consumption. However, disposable injectors will generate approximately two-thirds of revenues based on ...”

--Section IV, pg. 83

OTHER STUDIES

World Wipes

Global wipes demand will grow 6.1% yearly through 2011. Developed markets in the US, Western Europe and Japan will remain dominant, while faster growth will occur in developing nations such as China and India. Baby wipes will stay the largest type while household, personal care and health care wipes lead gains. This study analyzes the \$5.8 billion world wipes industry, with forecasts for 2011 and 2016 by product, world region and for 14 countries. It also details market share and profiles major producers.

#2231 08/2007..... \$5400

Active & Intelligent Packaging

US demand for active and intelligent packaging will grow 13% yearly through 2011. Intelligent packaging will grow the fastest, driven by the emergence of lower cost time-temperature indicator (TTI) labels. Active packaging will be paced by gas scavengers. Pharmaceuticals, beverages and food will offer the best market prospects. This study analyzes the US active and intelligent packaging industry, with forecasts for 2011 and 2016 by product and market. It also details market share and profiles major players.

#2236 08/2007..... \$4400

World Caps & Closures

Global demand for caps and closures will grow 4.7% annually through 2011. Unit gains will be driven by the penetration of closures into gabletop and aseptic drink cartons and plastic pouches. Emerging markets will perform strongly, led by China and India. Plastic closures will continue to supplant metal and cork. This study analyzes the \$25.2 billion cap and closure industry, with forecasts given for 2011 and 2016 by material, market, world region and for 17 countries. It also details market share and profiles major firms.

#2211 07/2007..... \$5500

World Labels

The global label market will grow 5.5% annually through 2011, driven by the diffusion of advanced logistics in developing areas and the development and penetration of smart radio frequency and value-added labels. The best gains will occur in emerging economies. This study analyzes the \$67 billion world label industry, with forecasts for 2011 and 2016 by label material, application method, printing technology, world region and for 21 major countries. It also evaluates market share and profiles major players.

#2219 06/2007..... \$5500

Sterile Medical Packaging

US sterile medical packaging demand will grow 6% annually through 2010. Pharmaceutical and biological uses will lead growth as new injectable and inhalation therapies boost demand for functional containers (e.g., prefilled inhalers/syringes). Pouches will stay the top container for medium- to large-sized devices and supplies. This study analyzes the \$3.3 billion US sterile medical packaging industry to 2010 and 2015 by product, material and application. It also details market share and profiles major players.

#2119 10/2006..... \$4300

About The Freedonia Group

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- Chemicals • Plastics • Life Sciences • Packaging • Building Materials • Security & Electronics • Industrial Components & Equipment • Automotive & Transportation Equipment • Household Goods • Energy/Power Equipment

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