

China and India Top the List of Emerging Markets for Paints and Coatings

Throughout the world in 2007, people will use approximately 7.7 billion gallons of paints and coatings worth about \$94.5 billion to improve the look of their houses, cars, and cell phones as well as protect their ships, bridges, and manufacturing equipment and facilities. According to Euromonitor, that number will grow at 5.6% per year to reach 9.15 billion gallons and have a value of \$111.5 billion by 2010. While many believe this growth rate to be somewhat high, all agree that the majority of increased demand will occur in emerging areas of the world, with the Asia Pacific region leading the way, followed by Eastern Europe and Latin America.

In terms of sales value, Asia Pacific already claims the largest share of the global paint and coatings market. In 2005, Euromonitor reported that this region accounted for 30%, with Western Europe second at 27% and North America a close third at 23%. The remainder was divided between Eastern Europe (7%), Latin America (4%), the Middle East (4%), and Africa (1%).

With its large share of the market, and high expected growth rate (nearly 40% over the period 2005 through 2010), Asia Pacific provides a tremendous opportunity for paint and coatings manufacturers and their suppliers. Euromonitor predicts that Eastern Europe will have the highest growth rate over this period (68%), but it is a much smaller market segment and has not received the same level of attention.

In all of the emerging markets, some common factors lie behind the dramatic growth rates. Growing economies have led to increased incomes for the people living in these regions. The number of people able to own a home and a car has increased. More money is also available to spend, both on paint itself and on consumer items that are coated, such as appliances and personal electronic equipment. The movement of manufacturing in many industries to these lower cost areas of the world has also contributed to the rise in consumption. There is also a growing interest in higher performing coatings.

by Cynthia Challener, JCT CoatingsTech Contributing Writer

ARCHITECTURAL AND INDUSTRIAL COATINGS IMPORTANT IN CHINA

In the Asia Pacific Region, China is the largest market by far. Japan is the second largest market by volume, but is mature and experiencing minimal growth. India, however, is another fairly large market that is growing rapidly.

China accounted for 30% of the total value of paint and coatings sales in Asia Pacific in 2005, and is currently the second largest market in the world after the United States. However, per capita spending on paints and coatings is only a little more than a tenth of that in the U.S., leaving tremendous room for growth. The growth rate is estimated by most analysts to be approximately 10–12% per year. Kusumgar, Nerfi & Growney (KNG) estimate that the Chinese paint and coatings market in 2007 will be ~5 million metric tons with a value of \$9 billion, up from 4.5 million metric tons in 2006 (\$8.5 billion).

Architectural coatings make up the largest segment of the Chinese market and account for anywhere from 40–65%, depending on different estimates. The ChemQuest Group, Inc. puts the growth rate for architectural paints in China at 9.5–10% per year. Others estimate the growth rate to be as much as 15% per year. Industrial OEM coatings are the second largest segment (largely general metal) with a 9.3% annual growth rate. Special purpose coatings (split equally between marine and industrial maintenance) make up the balance and are growing at 7% per year. Overall, growth in industrial coatings (including the specialty segment) is accelerating while the rate of increasing demand for architectural coatings is decelerating.

With regard to coatings technologies, solventborne and water-based paints each account for between 45–50% of the market,

according to KNG. Waterborne coatings are largely found in the architectural sector, while solvent-based formulations mainly have industrial applications. Powder coatings are still a small segment of the industry, but are growing the fastest at 15% per year. Radiation-cured and 100% solids formulations still account for a very minor fraction of the Chinese market.

Growth in the decorative coatings market is being driven by extensive construction and property development. China is currently preparing for the 2008 Beijing Olympics, the 2010 World Expo to be held in Shanghai, and the Asian Games, which will take place in Guangzhou, all which have led to significant investments in urban infrastructure.

The government plans to invest RMB8 trillion in housing and infrastructure projects in the next few years, according to Information Research (IRI), a division of Business Research Group (UK) Ltd. The education, health, and travel sectors are also expected to expand rapidly in response to private and state investment. IRI reports that tourism, hotel, and leisure facilities are all being upgraded in anticipation of the Olympics.

The growth of office construction will also be an important contributor to the growing coatings market. Foreign companies that have moved their manufacturing operations to China are following up these activities with additional investments in administrative and R&D centers. Key locations will be in Shanghai and Beijing.

Urbanization is one factor contributing to strong demand for residential housing. Approximately 20 million people have moved into cities each

year for the past five years, according to Jianjun Liu, strategic marketing manager for greater China, Paint and Coatings Materials, with Rohm and Haas Company. Disposable income is also rising rapidly at greater than 10% per year, creating an urban middle class that can afford apartments. "One of the results is that the demand for medium-performance-and-above coatings now accounts for close to 40–45% of the market," Liu notes.

Home ownership has grown very rapidly since 1998, when the Chinese government ended its welfare housing scheme. Housing completions rose by 20% in 2005, according to IRI. Repainting of existing homes is expected to be an additional driver for the architectural coatings market in the future, as consumers look to redecorate with new colors and styles, resulting in the growth of new channels of distribution. Also, new home construction is anticipated to shift from the major cities to other areas. According to Euromonitor, the real estate market in China will continue to grow at 10% per year through 2010, despite the Central Government's efforts to cool down the speculative housing market.

In the industrial segment, the shift of manufacturing to China, and rising domestic demand for consumer goods such as appliances and electronic products have been



the key factors in the dramatic growth of coatings sales. Automotive (plastic and metal) and wood coatings have been most positively impacted by the shift of manufacturing. Large capital inflows from foreign investors are expected to continue in response to the appreciation of the Chinese currency.

Both auto OEM and refinish coatings are growing rapidly as individual income rises and smaller vehicles become more affordable. Total vehicle production in China in 2006 surpassed 7 million units, with an annual growth rate over 20%, according to Liu. That growth rate was maintained in the first quarter of 2007. In addition, according to IRL, Chinese government initiatives on fuel consumption will prompt vehicle replacement. Even though car ownership has increased greatly, the number of people who own automobiles is still a very small percentage of the population; so the potential for growth remains significant for many years to come.

The wood furniture industry is also growing rapidly, due to increasing domestic consumption and rising exports. In 2006, China overtook the number one position as the largest exporter of furniture in the world (in terms of value). Total exports of goods, according to Liu, have grown 22.7% per year in real terms from 2003-2006. China is also the largest production base for many types of consumer electronic products and appliances. The country's rising interest in educational toys for children will also be a driver for coatings.

While aerospace and marine coatings account for only a small volume of the Chinese market, they are of high value. China is now the largest shipping container producer in the world, making more than 95%

of marine containers, according to Liu. The country also has a very large shipbuilding industry as a result of high demand for fuel tankers in the region. A rising wealthy class in China is also creating demand for yachts and other pleasure crafts.

CHINESE COATINGS INDUSTRY STRUCTURE AND ISSUES

The tremendous opportunities presented by the Chinese market have led many companies to build paint and coatings factories, resulting in fierce competition in some areas. There are anywhere from 8,000-10,000 paint manufacturers in China, many of which are regional and serve the local one or two provinces. Some of them produce low quality copies of branded paints, a problem that the government is working to address, according to Euromonitor.

Many companies have improved the quality of their products in order to be competitive with foreign

suppliers. In the architectural segment, according to Liu, retail growth, which now accounts for about 50% of the total market, has driven the improvement in overall paint quality, which can be measured by increasing binder percentage in formulations.

However, quality does remain an issue. Consumers have limited knowledge about the benefits of high quality paint, and not enough attention is paid to the application methods. Many provincial governments are establishing training programs to increase application skills. "Rohm and Haas through its Paint Quality Institute (PQI) program is also working to increase awareness of high quality coatings and the different ways to obtain a good paint job," Liu adds.

Consolidation is expected to occur over time. Maydos Chemical is one Chinese company that has taken this approach, acquiring Yangzhou Jinling, Beijing Sanqi, and Zhejiang Rongtai, as well as gaining shares of Guangzhou Supe, Shenzhen Motian, and Foshan Eastman, according to consulting firm Research In China.

Foreign companies looking to invest in China have found it necessary to form joint ventures with domestic firms. More recently, some companies have chosen to acquire Chinese paint manufacturers as a way to enter the market. For example, Akzo Nobel acquired Guangzhou Toide Coating Corporation and Valspar Corporation purchased Shunde Huarun Paints Co., Ltd.

The leading companies in China are all joint ventures of foreign firms. According to KNC, Akzo Nobel is the largest coatings company in China. Other companies of noteworthy size include Nippon Paint, China Ocean



Photo courtesy of Akzo Nobel

Shipping Company (COSCO, joint venture with Kansai Paint), DuPont, Hempte Hai Hong, Chogoku Marine Paints, and ICI Swire Paint.

It is not surprising that the major coatings companies today have numerous manufacturing sites in China. Recently the trend has been for both coatings manufacturers and their suppliers to build R&D centers as well. Akzo Nobel has research departments at its various coatings locations in China, and DuPont (refinish and coatings technology centers in Shanghai), ICI (China Technology Center near Shanghai), PPG (Application Support Center in Suzhou), Sigma-Kalon (R&D center in Kunshan), Bayer MaterialScience (R&D center in Shanghai), DSM (resins research and technology center in Jiangyin), Eastman (technical center in Shanghai), and Rohm and Haas (R&D center near Shanghai) have all pursued this strategy as well. Akzo Nobel also has dedicated research departments at its various coatings locations in China.

ARCHITECTURAL FOCUS IN INDIA

The Indian paint and coatings market is estimated to be approximately 1.3 million metric tons in 2007, with a corresponding value of \$2–2.5 billion and a growth rate of 10–15% per year. The architectural segment dominates, accounting for as much as 85% of the market on a wet pound basis, according to KNC. General industrial and auto OEM are the largest consumers in the industrial coatings sector, as reported by ChemQuest.

Because most of the coatings in India are architectural formulations, KNC reports that water-based technology accounts for 45–55% of the market, followed by solventborne coatings at 35–40%, and cement-based paints (a special type of powder paint for exterior masonry substrates, where essentially cement

acts as the binder) at 10–12%. Powder and 100% solids formulations make up the remainder.

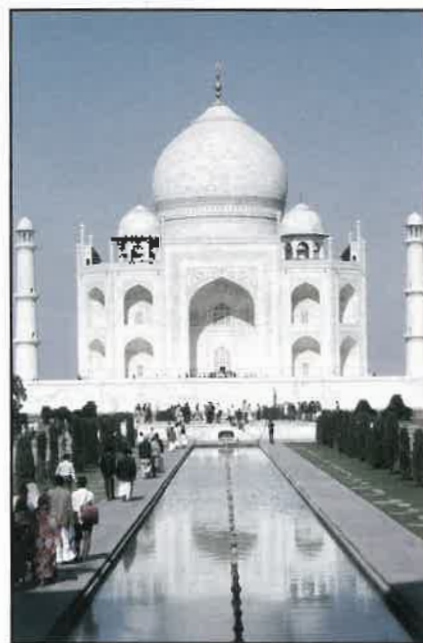
Changing lifestyle preferences are an important factor in the Indian decorative coatings marketplace. "Consumers often find inspiration from the media and their experiences when traveling to foreign countries," notes Dr. Terry Knowles, business manager at IRL. However, the earning power of Indian consumers remains fairly low, and demand for low-end products is far greater than is the demand for higher performing coatings.

The coatings industry in India is also fragmented, but not as extensively as in China. A major difference between the two coatings markets is the fact that in India the leading paint companies are domestic operations. The largest coatings company in India is Asian Paint, with a 44% share, according to ChemQuest. The company also has a 50/50 joint venture with PPG. Others include Berger, Kansai Nerolac, and ICI India.

For foreign investors, India has only recently become a serious opportunity. "For an emerging market, the paint and coatings industry is surprisingly consolidated. Because it has taken so long for India to take off, it is in some ways very much like other more mature markets," says Derek Welch, director of corporate strategy at Akzo Nobel. As a result, opportunities for international companies to grow organically and to acquire good domestic companies are limited.

India also lacks the level of infrastructure development currently present in China. Increasing channels for inland transportation—roads, bridges, rail, etc.—is a major priority for the Indian government.

On the other hand, intellectual property issues are not nearly as much of a concern in India as they are in China. "Indian companies have historically been much more proactive in obtaining the tech-



nologies they need by licensing them from foreign partners," says Knowles.

GROWING ENVIRONMENTAL AWARENESS

In both China and India, the awareness of environmental issues associated with paints and coatings is growing along with the market size. In the architectural segment in China, "low odor and low VOC paints are becoming a critical marketing point for interior paints," says Liu. He also notes that in the industrial sector, more cleaner coating technologies have been growing at a high rate, but from a very low base. As a result, they still account for a minimal fraction of the total market. Waterborne coatings are finding more use in plastic coatings for cell phones and toys, coil coatings, the interiors of marine containers, and a variety of other applications. However, environmental regulations have yet to be established that will force a faster conversion from solventborne to waterborne coatings.

According to consulting firm Research in China, the Ministry of Construction in China reports that



Photo courtesy of Akzo Nobel

infrastructure throughout each. To supply these countries effectively at the national level, inter-

national companies

must consider how many plants and logistic centers are needed. Marketing strategy must be considered carefully as well, since foreign brands will be competing with up to thousands of local coating formulators that have built up brand recognition, while costs must be minimized at the same time.

Awareness of local culture and preferences is also a necessity. "Understanding the corporate and national culture is imperative to doing business in both China and India," stresses Dirk DiSantis, global market development manager, Eastman Chemical Company. "Understanding these cultural differences and balancing that against our own American cultural identity is the key to communicating effectively and will allow the business to build trust and nurture meaningful relationships that will ultimately accelerate business development and growth."

Timing of investments is also important. "Investing at the right moment—not too early and not too late—is vital. At Akzo Nobel, it is our ambition to grow mainly organically. Ultimately we aim to be the number one coatings company in China in all sectors," says Welch. Akzo Nobel currently has 13 coating sites in China and one in India. Since 2005 the company has opened seven new facilities in China, including decorative, protective, and powder coatings operations in several locations around the country.

Investing in local management is another strategy that foreign companies believe is critical for success.

"We are building a strong local team by providing technical and management training and by appointing these trained professionals to important management positions," explains Liu. According to Welch, Akzo Nobel subscribes to the philosophy that sustained growth requires simultaneous success in developing employees.

Working closely with local customers and providing local centers of technical excellence to support them is also an important facet of many investment programs within these emerging markets. "We are providing local R&D and technical service capabilities to address the specific needs of local customers," says Liu. "Rohm and Haas also focuses on supporting and collaborating with leading customers, including both international and local companies, both in India and China," he adds. The company is investing heavily in the region, including its new \$30 million China Research Development Center in Shanghai. In 2007 it will commission its second emulsions plant in Chennai India, and is building a third emulsion plant in China in the city of Sanshui in Guangdong province.

Eastman recently built a new technical center in Shanghai to complement its existing center in Singapore and enhance its ability to support customers in China and across Asia Pacific. "In the near-term, China and India continue to offer excellent opportunity to grow our existing business. And these are strategic markets for most firms from a long-term growth standpoint because as these markets continue to build momentum they will create new development opportunities that cater to their specific needs," stresses DiSantis. "Eastman has taken similar strategies in both China and India; we strive to provide excellent service and support to our customers and remain committed and prepared to respond to their needs." ■

approximately one-third of the 40 billion square meters of existing building space requires investment in energy-saving reconstruction efforts, offering a tremendous opportunity for "green" and environmentally friendly coatings.

FOREIGN COMPANIES SEEK TO SERVE

Coatings producers and their suppliers have recognized the opportunities presented by the large and growing markets in China and India. "Both China and India have been experiencing explosive economic growth," reports Eastman Chemical Company. "It is an exciting time to be in the paints and coatings industry in both countries. Each has a growing manufacturing base, but they are in different places on the development curve with China clearly the larger of the two markets."

There are several challenges that must be addressed in order for foreign coatings manufacturers to establish a strong position in these emerging markets. The extensive fragmentation of the industry means that international companies have to develop a lean production and distribution model to be competitive. "Designing proper distribution channels, building a competent sales force, and expanding to different tiers in cities of different regions also become key success factors," says Liu.

Both China and India are very large countries, with varied levels of