



[CLICK TO VIEW](#)

[Table of Contents 2](#)

[List of Tables & Charts 3](#)

[Study Overview 4](#)

[Sample Text, Table
& Chart 5](#)

[Sample Profile, Table &
Forecast 6](#)

[Order Form 7](#)

[About Freedonia, Custom
Research, Related Studies,
Corporate Use License 8](#)

Asphalt in China

Industry Study with Forecasts to **2010 & 2015**

Study #2167 | March 2007 | \$4900 | 205 pages

www.freedoniagroup.com



The Freedonia Group

767 Beta Drive

Cleveland, OH • 44143-2326 • USA

Toll Free US Tel: 800.927.5900 or +1 440.684.9600

Fax: +1 440.646.0484

E-mail: info@freedoniagroup.com

Table of Contents

EXECUTIVE SUMMARY

MARKET ENVIRONMENT

General	4
Economic Overview.....	5
Recent Economic Performance.....	6
Economic Outlook	7
Demographic Overview	8
Population	9
Households	11
Industrialization & Manufacturing Trends ..	12
Labor Force & Employment Trends.....	14
Personal Income Trends.....	17
Banking System & Regulations	19
Currency Exchange	23
The Eleventh Five-Year Plan	26
Nonbuilding Construction Outlook	27
New Construction	30
Improvements & Repairs	31
Roads & Other Transportation	32
Building Construction Outlook.....	33
Residential.....	36
New Housing	39
Additions & Alterations.....	40
Maintenance & Repairs	41
Housing Stock & Living Space.....	42
Nonresidential	44
New Construction	47
Additions & Alterations.....	48
Maintenance & Repairs	49
Building Stock.....	50
Competing Materials	51
World Outlook	52
Foreign Trade	55

PRIMARY ASPHALT

General	57
Supply & Demand.....	60
Primary Asphalt Types.....	61

ASPHALT PRODUCTS

General	63
Demand Drivers	65
Paving.....	66
Asphalt Cement	69
Asphalt Emulsions	71
Cutback Asphalts	74
Other Paving Asphalts.....	75

Roofing	76
Built-Up & Roll Roofing	79
Modified Bitumen Roofing	82
Asphalt Shingles	84
Other Roofing-Related Asphalts.....	86
Other Asphalt Products	88

ASPHALT PRODUCT MARKETS

General	91
Nonbuilding Construction	93
New	94
Maintenance & Repairs	96
Nonresidential Building Construction.....	97
New	99
Improvements & Repairs	101
Residential Building Construction	103
New	104
Improvements & Repairs	106
Other Markets.....	107

REGIONAL TRENDS

General	109
Regional Demographic & Economic Trends	112
Population Patterns.....	113
Economic Outlook	114
Construction Expenditures	115
Nonbuilding Construction Expenditures	117
Nonresidential Building Construction Expenditures	118
Residential Building Construction Expenditures	119
Regional Asphalt Demand	121
Central-North	123
Overview	123
Asphalt Demand	125
Northeast	127
Overview	127
Asphalt Demand	130
Central-East	132
Overview	132
Asphalt Demand	134
Central-South	136
Overview	136
Asphalt Demand	138
Southwest	140
Overview	140
Asphalt Demand	142

Northwest.....	144
Overview	144
Asphalt Demand	146

INDUSTRY STRUCTURE

General	149
Industry Composition	149
Market Share	152
China Petroleum & Chemical (Sinopec) ..	152
PetroChina	153
China National Offshore Oil (CNOOC) ..	153
Qingdao Guangyuanfa Group	153
Shandong Befar Group	154
Panjin Northern Asphalt.....	154
Other Leading Companies	154
Foreign Participation in the Chinese Market.....	155
Legal & Regulatory Issues	155
Joint Ventures	157
Wholly-Owned Foreign Enterprises	159
Representative Offices	160
Exporting to China	160
Cooperative Agreements.....	161

COMPANY PROFILES

Anglo American plc	166
Bouygues Group.....	168
Chevron Corporation	170
China National Offshore Oil.....	171
China Petroleum & Chemical	174
China Petroleum Sales Jiangsu	178
Dagang Oil Field Group	180
Exxon Mobil	181
Hanson plc.....	182
Koch Industries	183
Neste Oil	184
Panjin Northern Asphalt.....	186
PetroChina Company	188
Qingdao Guangyuanfa Group	190
Royal Dutch Shell.....	192
Shandong Befar Group	195
Shandong Huaxing Petrochemical	196
Shanxi Hongte Coal Chemical Industry...	197
Shenzhen Novophalt Asphalt High Technology	198
Sichuan Shengma Chemical.....	200
SK Corporation	201
Total SA.....	203
West Pacific Petrochemical.....	204

List of Tables/Charts

EXECUTIVE SUMMARY

1 Summary Table3

MARKET ENVIRONMENT

1 Gross Domestic Product of China.....8
 2 Population of China..... 10
 Cht Population of China by Age 11
 3 Households in China by Region 12
 4 Manufacturing Value Added in China . 14
 5 Urban Labor Force & Employment Trends in China, 1995-2005..... 16
 Cht Urban Unemployment Rate in China, 1995-2005..... 17
 6 Per Capita GDP in China by Region.... 19
 7 Interest Rates in China, 1995-2005 .. 22
 Cht Interest Rates in China, 1995-2005 .. 23
 8 Chinese Currency Exchange Rates, 1995-2005 25
 Cht Chinese Currency Exchange Rates, 1995-2005 25
 9 Nonbuilding Construction Expenditures in China..... 30
 10 Paved Roads in China by Region..... 33
 11 Building Construction Expenditures in China 35
 Cht Building Construction Expenditures in China by Type 36
 12 Residential Building Construction Expenditures in China..... 39
 13 Housing Stock & Living Space in China 44
 14 Nonresidential Building Construction Expenditures in China..... 47
 15 Nonresidential Building Stock in China 51
 16 World Asphalt Demand by Region 54
 Cht World Asphalt Demand by Region, 2005 54
 17 Trends in Chinese Foreign Trade in Asphalt..... 56

PRIMARY ASPHALT

Cht Primary Asphalt Flow Chart..... 59
 1 Primary Asphalt Supply & Demand in China 61

ASPHALT PRODUCTS

1 Asphalt Demand in China by Product. 64

Cht Asphalt Demand in China by Product, 2005 65
 2 Paving Products in China -- Asphalt Demand by Type 68
 Cht Paving Asphalt Demand by Type, 2005 69
 3 Asphalt Cement Demand in China 71
 4 Asphalt Demand in Asphalt Emulsions in China 73
 5 Asphalt Demand in Cutback Asphalts in China 75
 6 Asphalt Demand in Other Paving Products in China..... 76
 7 Roofing Asphalt Demand in China 78
 Cht Roofing Asphalt Demand by Type, 2005 79
 8 Built-Up & Roll Roofing -- Asphalt Demand in China 81
 9 Modified Bitumen Roofing -- Asphalt Demand in China 84
 10 Asphalt Shingles -- Asphalt Demand in China 86
 11 Other Roofing Asphalt Demand in China 88
 12 Other Asphalt Products -- Asphalt Demand in China 90

ASPHALT PRODUCT MARKETS

1 Asphalt Demand in China by Market & Application..... 92
 Cht Asphalt Demand in China by Market, 2005 93
 2 Nonbuilding Construction -- Asphalt Demand in China 94
 3 New Nonbuilding Construction -- Asphalt Demand in China 96
 4 Nonbuilding Maintenance & Repairs -- Asphalt Demand in China 97
 5 Nonresidential Building Construction -- Asphalt Demand in China 99
 6 New Nonresidential Building Construction -- Asphalt Demand in China 101
 7 Nonresidential Building Improvements & Repairs -- Asphalt Demand in China 102
 8 Residential Building Construction -- Asphalt Demand in China 104

9 New Residential Building Construction -- Asphalt Demand in China 105
 10 Residential Building Improvements & Repairs -- Asphalt Demand in China 107
 11 Other Markets -- Asphalt Demand in China 108

REGIONAL TRENDS

1 Population of China by Region 114
 2 Gross Domestic Product of China by Region..... 115
 3 Construction Expenditures in China by Region..... 117
 4 Nonbuilding Construction Expenditures in China by Region..... 118
 5 Nonresidential Building Construction Expenditures in China by Region . 119
 6 Residential Building Construction Expenditures in China by Region . 121
 7 Asphalt Demand in China by Region 122
 Cht Asphalt Demand in China by Region, 2005 123
 8 Central-North Region of China: Asphalt Demand 127
 Cht Central-North Region of China..... 125
 9 Northeast Region of China: Asphalt Demand 132
 Cht Northeast Region of China..... 130
 10 Central-East Region of China: Asphalt Demand 136
 Cht Central-East Region of China..... 134
 11 Central-South Region of China: Asphalt Demand 140
 Cht Central-South Region of China 138
 12 Southwest Region of China: Asphalt Demand 144
 Cht Southwest Region of China..... 142
 13 Northwest Region of China: Asphalt Demand 148
 Cht Northwest Region of China 146

INDUSTRY STRUCTURE

1 Revenue Data: Selected Asphalt Companies, 2005 151
 Cht Asphalt Market Share in China by Company, 2005..... 152
 2 Selected Cooperative Agreements ... 162

Steep-slope roofing applications are increasingly favored in new residential construction in China, thereby diminishing demand for asphalt built-up roofing (BUR) and asphalt roll roofing.

Asphalt demand to reach ¥34.6 billion in 2010

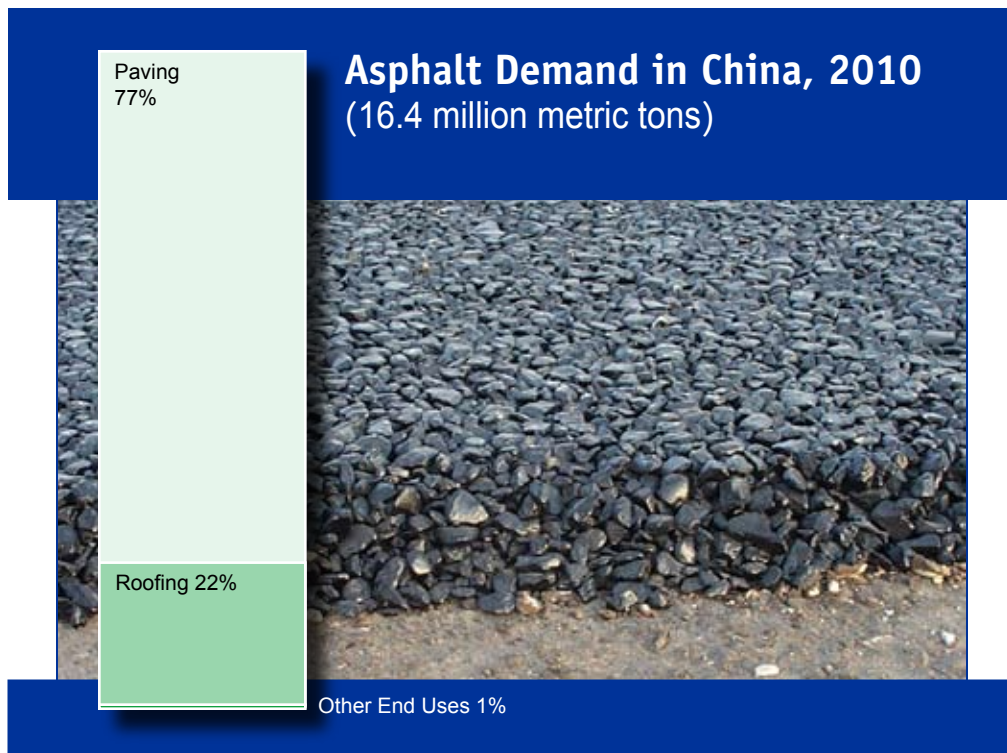
Demand for asphalt in China is forecast to rise 6.0 percent annually through 2010 to 16.4 million metric tons. Measured in yuan, asphalt demand is expected to climb 8.2 percent annually to ¥34.6 billion. The Chinese asphalt market will experience the fastest growth among the major economies of the world, driven by strong gains in road and building construction. Asphalt imports into China are expected to climb to 6.6 million metric tons in 2010, 40 percent of total demand.

Asphalt paving applications to outperform roofing

Asphalt demand in paving applications will outperform roofing, rising 7.1 percent annually to 12.6 million metric tons in 2010, and accounting for more than three-quarters of domestic demand. Strong increases in road construction activity will drive market gains. Beginning with its first highway, completed in 1988, China increased its highway system to 41,000 kilometers in 2005, second only to the US. China's national highway development plan will expand China's highway system to 85,000 kilometers during the next three decades.

Shift in roofing types to favor shingles, membranes

Roofing-related asphalt demand will moderate in the coming years, averaging annual growth of 2.7 percent to 3.7 mil-



lion metric tons in 2010, despite a strong building construction market. Although asphaltic roofing products, such as asphalt shingles and modified bitumen membranes, will continue their inroads into the Chinese roofing market, demand for asphalt built-up (BUR) and roll roofing will continue to lose market share. While BUR and roll roofing have historically dominated low-slope roof construction in China, steep-slope roofing applications are increasingly favored in new residential construction, thereby diminishing demand for BUR and asphalt roll roofing. In addition, under China's Flat to Slope Conversion Project, existing flat roofs within the residential market will continue to be replaced with steep-slope roofs, thus reducing existing BUR and roll

roofing stocks. Such declines will negatively impact future BUR and roll roofing maintenance and repair expenditures. Conversely, the Conversion Project will serve to boost demand for asphalt shingles, which are the fastest growing roofing materials used in sloped-roof applications.

Northwest, Southwest to see fastest regional gains

Among China's regional markets, the Northwest and Southwest will see the strongest advances in asphalt demand. Stronger upward trends in population, economic growth and construction activity will support asphalt demand gains in both paving and roofing.

Copyright 2007 The Freedonia Group, Inc.

[Click here to purchase online](#)

Sample Text, Table & Chart

ASPHALT PRODUCTS

Modified Bitumen Roofing

Demand for asphalt used in modified bitumen roofing to reach 5.0 million metric tons on annual growth of 3.9 percent with conventional built-up roofing and asphalt roll roofing. Modified bitumen roofing is used in low-slope roofs and is found in residential buildings. Modified bitumen roofing is a flexible membrane (as elastomers or thermoplastic materials) and built-up roofing to the available. Modified bitumen roofing, a premium is placed on modified bitumen developments that would reduce installed cost and improve product performance. Innovations in application methods for modified bitumen roofing, such as heat-welded seaming, self-adhesive membranes, and various ambient-applied methods, will boost demand.

Modified bitumen roofing systems essentially represent a combination of single-ply flexible membranes and built-up roofing. As with other flexible membranes, such as elastomeric and thermoplastic membranes, modified bitumen membranes are manufactured from engineered materials. Factory construction of the membrane allows for uniform thickness and physical characteristics throughout the product. The materials that make up modified bitumen roofing, however, are similar to those used in a built-up roof. Furthermore, some roofing applications of modified bitumen membranes involve the assembly of multiple layers, as in built-up roofing.

Individual modified bitumen membranes consist of one or more fiber mats (generally fiberglass, non-woven polyester or a combination of the two materials) that reinforce layers of bituminous material (coal tar, asphalt or a nonasphaltic petroleum-derived substance). The bituminous material is modified by the addition of a rubber or plastic for flow-resistance at high temperatures and extra flexibility to withstand building movement and thermal shock. The reinforcement may be laminated to

TABLE V-8

RESIDENTIAL BUILDING CONSTRUCTION -- ASPHALT DEMAND IN CHINA (thousand metric tons)

Item	1995	2000	2005	2010	2015
Res Bldg Constr Expend (bil 2000 ¥)	177	342	739	1140	1660
m tons asphalt/mil ¥ construct	2.5	1.6	0.9	0.7	0.6
Res Building Constr Asphalt Demand					
By Product:					
Roofing					
Built-Up & Roll Roofing					
Modified Bitumen Roofing					
Asphalt Shingles					
Other					
Paving & Other					
By Application:					
New					
Improvements & Repairs					
% residential building					
Total Asphalt Demand					

“New -- Demand for asphalt used in the construction of new housing is forecast to rise 3.9 percent per annum through 2010 to 580,000 metric tons. Healthy advances in residential construction and continuing use of built-up roofing and asphalt roll roofing in China will spur market growth. However, steep-slope roofing is increasingly favored in new residential construction applications, limiting growth potential for built-up and roll roofing.”

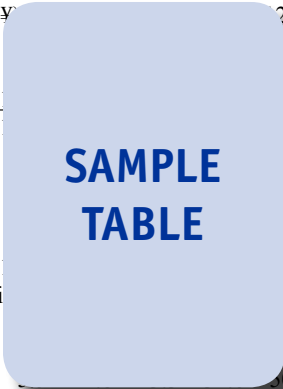
--Section V, pg. 104

Sample Profile, Table & Forecast

TABLE IV-2

PAVING PRODUCTS IN CHINA -- ASPHALT DEMAND BY TYPE
 (thousand metric tons)

Item	1995	2000	2005	2010	2015
Road/Other Transport Constr (bil 2000 ¥)					206
m tons asphalt/mil ¥ construction					3.8
Asphalt Demand in Paving Products					100
Asphalt Cement					50
Asphalt Emulsions					20
Cutback Asphalt					90
Other Asphalt Paving Products					40
¥/metric ton					80
Asphalt Demand in Paving Products (bil ¥)					9.7
% paving					9.1
Total Asphalt Demand (bil ¥)					10.2



COMPANY PROFILES

Panjin Northern Asphalt Company Limited

Xingong Street, Xinglingtai District
 Panjin, Liaoning 124022 CHINA
 86-42-7285-1971

http://www

Annual Sales (bil ¥) (2005)

Employment

Key Products: asphalt, asphalt emulsion, asphalt cutback, specialty and polymer-modified asphalt

International Sales: manager

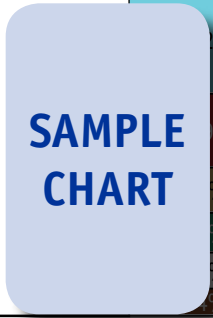
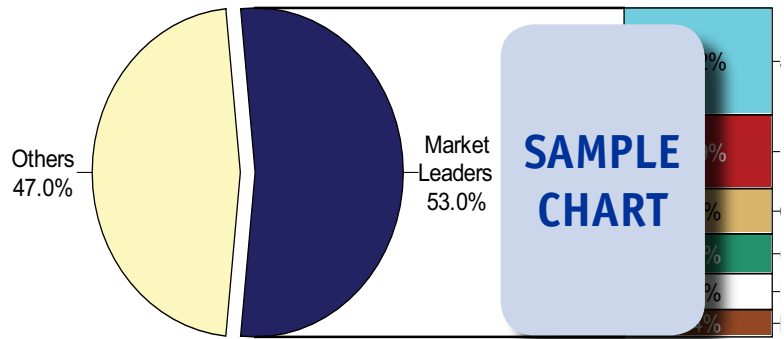


Panjin Northern Asphalt Company Limited is the sixth largest asphalt producer in China, with a 4.4 percent share of the national market in 2005. The company manufactures and markets paving-grade asphalt, heating oil, tar, pitch and other petroleum products. Panjin Northern Asphalt is a joint venture between Huajian Transportation Economic Development Center, Panjing Asphalt Plant, Liaoning Provincial Communications Department, Jilin Provincial Communications Department, Heilongjiang Provincial Communications Department and Jinzhou Railway Bureau.

The Company is active in the Chinese asphalt industry through production and sale of paving-grade asphalt. Types of asphalt made Panjin Northern Asphalt include A-100 and A-140 standard; AH-70 AH-90 and AH-110 high-performance; and specialty grades. Standard A-100 and A-140 paving-grade asphalts are used in the construction of residential roads, paved public areas and highways with low and moderate traffic levels. These asphalt formulations have consistent flow and protective properties in extreme low- and high-temperature conditions,

CHART VII-1

ASPHALT MARKET SHARE IN CHINA BY COMPANY, 2005
 (¥23.3 billion)



ONLINE: www.freedoniagroup.com

MAIL: Print out and complete the order form and send to The Freedonia Group (see address at the bottom of this form)

PHONE: Call toll free, 800.927.5900 (US) or + 1 440.684.9600

FAX: + 1 440.646.0484 (US)

EMAIL: info@freedoniagroup.com

Free Handling & Shipping

There is NO charge for handling or UPS shipping in the US. Expect delivery in 3 to 5 business days. Outside the US, Freedonia provides free airmail service. Express delivery is available at cost.

Orders Outside of the US

Checks must be made payable in US funds, drawn against a US bank and mailed directly to The Freedonia Group. For wire transfers please contact our customer service department at info@freedoniagroup.com. Credit cards accepted.

Credit Card Orders

For convenience, Freedonia accepts American Express, MasterCard or Visa. Credit card purchases must include account number, expiration date and authorized signature.

Save 15%

If you order three (3) different titles at the same time, you can receive a 15% discount. If your order is accompanied by a check or wire transfer, you may take a 5% cash discount (discounts do not apply to Corporate Use Licenses).

Corporate Use License

Now every decision maker in your organization can act on the key intelligence found in all Freedonia studies. For an additional \$2300, companies receive unlimited use of an electronic version (PDF) of the study. Place it on your intranet, e-mail it to coworkers around the world, or print it as many times as you like,

Click here to learn more about the Corporate Use License

ORDER FORM

F-WEB.2167

Asphalt in China..... \$4900

Corporate Use License (add to study price) * + \$2300

Additional Print Copies @ \$500 each *

Total (including selected option) \$

Enclosed is my check (5% discount) drawn on a US bank and payable to The Freedonia Group, Inc., in US funds (Ohio residents add 7.75% sales tax)

Bill my company American Express MasterCard Visa

Credit Card #

Expiration MM YY

Signature

Name

Title

Company

Division

Street (No PO Box please)

City/State/Zip

Country

Phone Fax

Email

* Please check appropriate option and sign below to order an electronic version of the study.

Corporate Use License Agreement

The above captioned study may be stored on the company's intranet or shared directory, available to company employees. Copies of the study may be made, but the undersigned represents that distribution of the study will be limited to employees of the company.

Signature

Individual Use License Agreement

The undersigned hereby represents that the above captioned study will be used by only individual(s) who are employees of the company and that the study will not be loaded on a network for multiple users. In the event that usage of the study changes, the Company will promptly notify Freedonia of such change and will pay to Freedonia the appropriate fee based on Freedonia's standard fee schedule then in effect. Note: Entire company corporate use license, add \$2300; one additional user, add \$400; two additional users, add \$800; three additional users, add \$1200.

Signature

OTHER STUDIES

Asphalt

US demand for asphalt will reach 38 million tons in 2011. Paving products will remain the dominant segment and benefit from increased government spending on highway and road construction. Roofing products will grow slightly faster, driven by good prospects for low-slope roofing products in nonresidential markets. This study analyzes the \$15 billion US asphalt industry, with forecasts for 2011 and 2016 by product, market and region. It also evaluates company market share and profiles major players.

#2242 11/2007..... \$4500

Flat Glass in China

Demand for flat glass in China will rise 8.6% yearly through 2011 based on strong gains in building construction and manufacturing. Float glass will continue supplanting drawn and rolled glass. Fabricated flat glass will benefit from higher-end window and furniture glass and healthy motor vehicle and electronic display production. This study analyzes the ¥58.5 billion Chinese flat glass industry, with forecasts (2011, 2016) by product, market and region. It also details market share and profile major players.

#2223 11/2007..... \$4900

Construction Outlook in China

Construction expenditures in China will rise 8.8% annually through 2011. Nonbuilding construction will lead gains, followed closely by the nonresidential and residential sectors. An expanding domestic economy, ongoing infrastructure upgrades and sustained foreign investment will be among the growth factors. This study analyzes the outlook for construction in China, with forecasts for 2011 and 2016 by market, application and region. The study also evaluates market share and profiles major contractors.

#2193 05/2007..... \$4900

Roofing in China

Demand for roofing materials in China will rise 4.4% annually, outpacing all other major economies in the world. Concrete and clay tiles and bituminous roofing will remain the dominant types, while elastomeric and plastic membranes lead gains. The nonresidential building market will grow more rapidly than the residential segment. This study analyzes the ¥40 billion Chinese roofing industry to 2010 and 2015 by product, market and region. It also evaluates company market share and profiles major producers.

#2148 12/2006..... \$4900

Cement in China

Demand for cement in China will rise 5.1% annually through 2010, driven by moderating yet still healthy growth in construction spending. Portland cement will remain dominant while blended and specialty cements will grow faster. Ready-mix concrete will surpass construction contractors as the second largest market by 2015. This study analyzes the ¥199 billion Chinese cement industry to 2010 and 2015 by type, market, application and region. It also details company market share and profiles major players.

#2103 08/2006..... \$4900

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, the emerging China market, and other world markets. Industries analyzed by Freedonia include:

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

[Click here to learn more about Freedonia](#)

Freedonia Custom Research

Freedonia Custom Research delivers the same high quality, thorough and unbiased assessment of an industry or market as an industry study. Since the research initiative is based upon a company's specific needs, companies harness Freedonia's research capabilities and resources to answer unique questions. When you leverage the results of a Freedonia Custom Research engagement, you are able to obtain important answers to specific questions and issues associated with: mergers and acquisitions, new product launches/development, geographic expansion, entry into new markets, strategic business planning, and investment and funding decisions.

Freedonia Custom Research is ideal for companies seeking to make a strategic difference in the status quo and focus on future business growth. Working side by side with clients, Freedonia's team is able to define a research project that is custom-tailored to answer specific questions and provide the basis from which a company can make informed business decisions.

[Click here to learn more about Custom Research](#)



[Click here for complete title list](#)

[Click here to visit freedoniagroup.com](http://www.freedoniagroup.com)