

Global and China NdFeB Industry Report, 2015-2018

Nov. 2015



The Vertical Portal for China Business Intelligence

STUDY GOAL AND OBJECTIVES

This report provides the industry executives with strategically significant competitor information, analysis, insight and projection on the competitive pattern and key companies in the industry, crucial to the development and implementation of effective business, marketing and R&D programs.

REPORT OBJECTIVES

- To establish a comprehensive, factual, annually updated and costeffective information base on market size, competition patterns, market segments, goals and strategies of the leading players in the market, reviews and forecasts.
- To assist potential market entrants in evaluating prospective acquisition and joint venture candidates.
- To complement the organizations' internal competitor information gathering efforts with strategic analysis, data interpretation and insight.
- To suggest for concerned investors in line with the current development of this industry as well as the development tendency.
- To help company to succeed in a competitive market, and

METHODOLOGY

Both primary and secondary research methodologies were used in preparing this study. Initially, a comprehensive and exhaustive search of the literature on this industry was conducted. These sources included related books and journals, trade literature, marketing literature, other product/promotional literature, annual reports, security analyst reports, and other publications. Subsequently, telephone interviews or email correspondence was conducted with marketing executives etc. Other sources included related magazines, academics, and consulting companies.

INFORMATION SOURCES

The primary information sources include Company Reports, and National Bureau of Statistics of China etc.

Copyright 2012 ResearchInChina

The Vertical Portal for China Business Intelligence

Abstract

As the third-generation rare-earth permanent magnet material, NdFeB, an alloy of Pr-Nd metal and ferroboron, is featured with strong magnetic energy product, high coercive force, and high energy density. Being the best-value magnet, it enjoys the reputation of the "King of Magnets".

Thanks to the booming NdFeB industry in China, global NdFeB output soared from 14 kt in 2000 to 127 kt in 2014 at a CAGR of 13.4%. As the Chinese government eliminated export quota for rare earths, global NdFeB output will continue to grow to 143 kt in 2015.

China is the world's largest NdFeB producer with an output of 112 kt in 2014 (88.1% of the global total), up 19.0% year on year. In 2015, due to ceaseless decline in NdFeB price, China will produce 127 kt throughout the year, gaining by 13.5% from a year ago.

Nowadays, around 75% of NdFeB is used in traditional fields (electroacoustic devices, magnetic separation, consumer electronics, etc.), while only 25% finds application in new fields (inverter air-conditioners, new energy vehicles, and energy-saving elevators). Compared with stable demand from traditional fields, the demand for NdFeB from new applications, especially new energy vehicles, increases significantly. According to the statistics, new energy vehicles' consumption of NdFeB was 439 tons in China in 2014 when 79,000 new energy vehicles were manufactured, and is expected to further rise to 946 tons in 2015 when the country's new energy vehicle output will witness a spectacular rise (to an estimated 178,000). As downstream demand grows steadily and upstream raw material resources are abundant in China, the world's major NdFeB companies have made their presence here and continued to expand capacity.

Hitachi Metals: The largest NdFeB manufacturer in Japan where is the home to most of its production bases. The company decided in Jun 2015 to set up a joint venture- Hitachi Metals San Huan Magnetic Materials (Nantong) Co., Ltd. with Beijing Zhong Ke San Huan Hi-Tech Co., Ltd. Phase I of the project will see the construction of 2 kt/a NdFeB production line and is planned to go into operation in 2016.

Shin-Etsu Chemical: With completion of 3 kt/a magnet alloys production line for rare earth magnets in Changting base in 2013, the 3 kt/a magnetic powder production line for rare earth magnets will finish construction at the end of 2015. All products manufactured by the project will be exported to Japan for the production of hybrid electric vehicles.

Beijing Zhong Ke San Huan Hi-Tech: The largest NdFeB manufacturer in China and even across the world; production bases located in Ningbo, Tianjin, Nantong, Beijing, Guangdong, and Shanghai with total NdFeB capacity of 18 kt/a. The 2 kt/a high-performance NdFeB production line was officially completed in Nantong base in May 2015.

Copyright 2012ResearchInChina

The Vertical Portal for China Business Intelligence

Projects Proposed/under Construction of Global Major NdFeB Manufacturers, 2015

Manufactures	Capacity (ton)	Proposed/ Under Construction
Zhongke Sanhuan	18,000	A 2 kt/a NdFeB production line project (located in Nantong , Jiangsu, a joint venture established with Hitachi Metals)
Ningbo Yunsheng	6,000	A 6 kt/a sintered NdFeB preform body relocation and expansion project located in Baotou, is expected to go into operation in 2018
ShinZtsu	5,000	A 3 kt/a rare-earth magnet-used magnetic powder production line project in Changting, Fujian, is to be put into operation at the end of 2015
C Rising Nonferrous	4,500 W. Te S	A 2.5 kt/a high-performance NdFeB production line project (located in Guangdong, a joint venture with TDK), projected to be put into operation in 2017.
Advanced Technology	2,300	A 0.5 kt/a new energy vehicle-used high-performance NdFeB production line project, which, located in Beijing, expected to go into operation at the end of 2015.

Source: Global and China NdFeB Industry Report, 2015-2018; ResearchInChina

Global and China NdFeB Industry Report, 2015-2018 focuses on the followings:

- Global NdFeB industry (development environment, market size/structure, competitive landscape, etc.);
- > NdFeB industry in China (industrial policies, market size/structure, competitive landscape, import & export, etc.);
- NdFeB in China (price changes of main raw materials, demand structure of main applications, etc.);
- > Operation, revenue structure, NdFeB business, etc. of 5 foreign and 16 Chinese NdFeB manufacturers.

Copyright 2012ResearchInChina

The Vertical Portal for China Business Intelligence

Table of contents

1 Introduction to NdFeB Industry

- 1.1 Definition
- 1.2 Product Category
- 1.3 Industry Chain

2 Status Quo of Global NdFeB Market

- 2.1 Development Environment
- 2.2 Market Size
- 2.3 Market Structure
- 2.4 Competitive Landscape

3 Status Quo of Chinese NdFeB Market

3.1 Industrial Policy
3.2 Market Size
3.3 Market Structure
3.4 Cost Structure
3.5 Import & Export
3.5.1 Import
3.5.2 Export
3.6 Competitive Landscape

4 Upstream and Downstream of NdFeB Industry

4.1 Raw Material Price
4.2 Main Applications
4.2.1 New Energy Vehicle
4.2.2 Wind Power Equipment
4.2.3 Inverter Air Conditioner
4.2.4 Energy-saving Elevator

5 Major Foreign NdFeB Manufacturers

- 5.1 Hitachi Metals 5.1.1 Profile
- 5.1.2 Operation
- 5.1.3 Revenue Structure
- 5.1.4 NdFeB Business

5.1.5 Development in China
5.2 Shin-Etsu Chemical
5.2.1 Profile
5.2.2 Operation
5.2.3 Revenue Structure
5.2.4 NdFeB Business
5.2.5 Development in China
5.3 TDK
5.3.1 Profile
5.3.2 Operation
5.3.3 Revenue Structure
5.3.4 NdFeB Business
5.4 Other Enterprises
5.4.1 Seiko Epson
5.4.2 VAC

6 Major Chinese NdFeB Manufacturers

6.1 Beijing Zhong Ke San Huan High-Tech Co., Ltd. 6.1.1 Profile 6.1.2 Operation 6.1.3 Revenue Structure 6.1.4 Gross Margin 6.1.5 NdFeB Business 6.1.6 Developments 6.2 China Northern Rare Earth (Group) Hightech Co., Ltd. 6.2.1 Profile 6.2.2 Operation 6.2.3 Revenue Structure 6.2.4 NdFeB Business 6.2.5 Developments 6.3 Taiyuan Twin Tower Aluminum Oxide Co., Ltd. 6.3.1 Profile

6.3.2 Operation 6.3.3 Revenue Structure 6.3.4 Gross Margin 6.3.5 NdFeB Business 6.4 Yantai Zhenghai Magnetic Material Co., Ltd. 6.4.1 Profile 6.4.2 Operation 6.4.3 Revenue Structure 6.4.4 Gross Margin 6.4.5 R&D 6.4.6 NdFeB Business 6.4.7 Key Projects 6.5 Ningbo Yunsheng Co., Ltd. 6.5.1 Profile 6.5.2 Operation 6.5.3 Revenue Structure 6.5.4 NdFeB Business 6.5.5 Developments 6.6 Rising Nonferrous Metals Co., Ltd. 6.6.1 Profile 6.6.2 Operation 6.6.3 Revenue Structure 6.6.4 Gross Margin 6.6.5 NdFeB Business 6.6.6 Developments 6.7 Xiamen Tungsten Co., Ltd. 6.8 Advanced Technology & Materials Co., Ltd. 6.9 Sinosteel Anhui Tianyuan Technology Co., Ltd. 6.10 Zhongshan Broad-Ocean Motor Co., Ltd. 6.11 Chengdu Galaxy Magnets Co., Ltd. 6.12 Other Enterprises **7 Summary and Forecast**

7 Summary and Forec 7.1 Market 7.2 Enterprise

The Vertical Portal for China Business Intelligence

Selected Charts

- Elements of NdFeB
- Magnetic Performance Comparison between NdFeB Permanent Magnet Materials and Other Permanent Magnet Materials
- Performance Comparison of Three Kinds of NdFeB
- Classification of NdFeB
- NdFeB Industry Chain
- Consumption of Bonded NdFeB by Application, 2014
- Development History of Global Permanent Magnet Materials
- Expiration of Main Global NdFeB Patents
- Enterprises Holding Authorized NdFeB Patents in China, by 2015H1
- Global NdFeB Output and Growth Rate, 2008-2018E
- Global Bonded NdFeB Output, 2008-2018E
- Global High-performance NdFeB Output, 2008-2018E
- Global NdFeB Output Structure (by Country), 2014
- Global High-performance NdFeB Output Structure (by Country), 2014
- Global Downstream NdFeB Consumption Structure, 2014
- Global High-performance NdFeB Market Competition Pattern, 2014
- Global High-performance NdFeB Competition Pattern, 2018E
- Policies on NdFeB Industry in China, 2000-2015
- NdFeB Output and Growth Rate in China, 2006-2018E
- High-performance NdFeB Output and Growth Rate in China, 2007-2018E
- NdFeB Capacity Distribution in China, 2014
- China's Demand for High-performance NdFeB by Field, 2010-2018E
- NdFeB Cost Structure in China, 2014
- Import Volume & Value of NdFeB and Related Products in China, 2011-2015
- Import Volume Structure of NdFeB Permanent Magnets by Country/Region, 2014

The Vertical Portal for China Business Intelligence

Selected Charts

- Export Volume & Value of NdFeB and Related Products from China, 2013-2015
- Export Volume Structure of NdFeB Permanent Magnets by Country/Region, 2014
- Export Volume Structure of NdFeB Magnetic Powder by Country/Region, 2014
- Export Volume Structure of Other Neodymium-Iron Alloys by Country/Region, 2014
- Capacity Structure of NdFeB Manufacturers, 2015
- Capacity of Major Chinese NdFeB Manufacturers, 2015
- China's Metal Neodymium Price, 2013-2015
- China's Metal Praseodymium Price, 2013-2015
- Structure of Downstream Demand for NdFeB in China, 2014
- New Energy Vehicle Output in China, 2011-2018E
- Performance Comparison between Permanent Magnet Motors and Other Motors
- Global Mainstream New Energy Vehicle Drive Motors, 2015
- Demand for NdFeB from New Energy Vehicle in China, 2014-2018E
- China's Installed Wind Power Capacity, 2010-2018E
- Direct-drive Permanent Magnet Turbine Installed Capacity in China, 2014-2018E
- Demand for NdFeB from Wind Power Equipment in China, 2014-2018E
- Demand for NdFeB from Converter Air Conditioner in China, 2014-2018E
- Demand for NdFeB from Energy-saving Elevator in China, 2014-2018E
- Global Business Presence of Hitachi Metals
- Revenue and Net Income of Hitachi Metals, FY2009-FY2015
- Revenue Structure of Hitachi Metals by Product, FY2013-FY2015
- Global Market Expansion Strategy of Hitachi Metals, 2015
- Magnetic Material Revenue of Hitachi Metals, FY2014
- NdFeB Application Structure of Hitachi Metals, FY2014
- NdFeB Production Bases of Hitachi Metals, FY2014

The Vertical Portal for China Business Intelligence

Selected Charts

- Sales Structure of Hitachi Metals in China, FY2014
- Hitachi Metals' Enterprises in China, 2015
- Global Presence of Shin-Etsu Chemical
- Revenue and Net Income of Shin-Etsu Chemical, FY2008-FY2016
- Revenue Structure of Shin-Etsu Chemical by Business, FY2014-FY2016
- Revenue Structure of Shin-Etsu Chemical by Region, FY2014-FY2015
- Shin-Etsu Chemical's Investment in Magnetic Material Business, 2015
- Global Marketing Network of TDK
- Revenue and Net Income of TDK, FY2010-FY2016
- Revenue Structure of TDK by Product, FY2013-FY2016
- Revenue Structure of TDK by Region, FY2010-FY2016
- Main Magnetic Products of TDK
- Global Marketing Network of Seiko Epson
- Operating Revenue Structure of VAC by Product, 2015
- Equity Structure of Beijing Zhong Ke San Huan High-Tech, 2015
- Revenue and Net Income of Beijing Zhong Ke San Huan High-Tech, 2009-2015
- Operating Revenue Breakdown of Beijing Zhong Ke San Huan High-Tech by Product, 2008-2015
- Operating Revenue Structure of Beijing Zhong Ke San Huan High-Tech by Region, 2012-2015
- Gross Profit and Gross Margin of Beijing Zhong Ke San Huan High-Tech, 2010-2015
- Revenue of NdFeB Subsidiaries of Beijing Zhong Ke San Huan High-Tech, 2014
- NdFeB Revenue and Growth Rate of Beijing Zhong Ke San Huan High-Tech, 2003-2015
- NdFeB Application Structure of Beijing Zhong Ke San Huan High-Tech, 2014
- Equity Structure of China Northern Rare Earth (Group) High-tech, 2015
- Employees of China Northern Rare Earth (Group) High-tech, 2008-2014
- Revenue and Net Income of China Northern Rare Earth (Group) High-tech, 2008-2015

The Vertical Portal for China Business Intelligence

Selected Charts

- Subsidiaries Eliminated by China Northern Rare Earth (Group) High-tech for Backward Capacity, 2014
- Revenue Structure of China Northern Rare Earth (Group) High-tech by Product, 2012-2015
- Revenue Structure of China Northern Rare Earth (Group) High-tech by Region, 2008-2015
- NdFeB Revenue and Gross Margin of China Northern Rare Earth (Group) High-tech, 2008-2015
- Key Economic Indicators of Inner Mongolia Baotou Steel Rare Earth Magnetic Material, 2012-2015
- Equity Structure of Taiyuan Twin Tower Aluminum Oxide, 2015
- Employees of Taiyuan Twin Tower Aluminum Oxide, 2008-2014
- Revenue and Net Income of Taiyuan Twin Tower Aluminum Oxide, 2008-2015
- Revenue Structure of Taiyuan Twin Tower Aluminum Oxide by Product, 2013-2015
- Revenue Structure of Taiyuan Twin Tower Aluminum Oxide by Region, 2008-2015
- Gross Margin of Taiyuan Twin Tower Aluminum Oxide by Product, 2008-2015
- NdFeB Cost Structure of Taiyuan Twin Tower Aluminum Oxide, 2013-2014
- NdFeB Revenue and Growth Rate of Taiyuan Twin Tower Aluminum Oxide, 2008-2015
- Revenue and Net Income of Zhejiang Innuovo Magnetics, 2012-2015
- Revenue and Net Income of Shanxi Innuovo Magnetics, 2012-2015
- Equity Structure of Yantai Zhenghai Magnetic Material, 2015
- Revenue and Net Income of Yantai Zhenghai Magnetic Material, 2009-2015
- Revenue Structure of Yantai Zhenghai Magnetic Material by Product, 2015
- Revenue Structure of Yantai Zhenghai Magnetic Material by Region, 2010-2014
- Gross Margin of Yantai Zhenghai Magnetic Material, 2010-2015
- R&D Costs of Yantai Zhenghai Magnetic Material, 2011-2015
- NdFeB Revenue and Gross Margin of Yantai Zhenghai Magnetic Material, 2010-2015
- NdFeB Output and Sales Volume of Yantai Zhenghai Magnetic Material, 2012-2014
- NdFeB Revenue Structure of Yantai Zhenghai Magnetic Material by Type, 2014
- NdFeB Consumption Structure of Yantai Zhenghai Magnetic Material, 2014

The Vertical Portal for China Business Intelligence

Selected Charts

- Equity Structure of Ningbo Yunsheng, 2015
- Employees of Ningbo Yunsheng, 2007-2014
- Revenue and Net Income of Ningbo Yunsheng, 2008-2015
- Revenue Structure of Ningbo Yunsheng by Product, 2012-2015
- Revenue Structure of Ningbo Yunsheng by Region, 2010-2015
- Revenue of Ningbo Yunsheng's Major NdFeB Subsidiaries, 2014
- NdFeB Revenue and Gross Margin of Ningbo Yunsheng, 2009-2015
- NdFeB Cost Structure of Ningbo Yunsheng, 2012-2014
- NdFeB Consumption Structure of Ningbo Yunsheng, 2014
- Equity Structure of Rising Nonferrous Metals, 2015
- Employees of Rising Nonferrous Metals, 2009-2014
- Revenue and Net Income of Rising Nonferrous Metals, 2009-2015
- Revenue Structure of Rising Nonferrous Metals by Product, 2013-2015
- Revenue Structure of Rising Nonferrous Metals by Region, 2013-2015
- Gross Margin of Rising Nonferrous Metals by Product, 2009-2015
- Revenue and Net Income of Guangdong Rising Nonferrous Metals Import & Export, 2012-2015
- Revenue and Net Income of Guangdong Rising Zhiwei Rare Earth New Materials, 2012-2015
- Equity Structure of Xiamen Tungsten, 2015
- Revenue and Net Income of Xiamen Tungsten, 2008-2015
- Revenue Structure of Xiamen Tungsten by Product, 2012-2015
- Revenue Structure of Xiamen Tungsten by Region, 2009-2015
- Revenue and Net Income of Changting Golden Dragon Rare-Earth, 2010-2015
- Equity Structure of Advanced Technology & Materials, 2015
- Revenue and Net Income of Advanced Technology & Materials, 2009-2015
- Revenue Structure of Advanced Technology & Materials by Product, 2013-2015

The Vertical Portal for China Business Intelligence

Selected Charts

- Revenue Structure of Advanced Technology & Materials by Region, 2010-2015
- Revenue of Highmag Technology, 2013-2015
- Equity Structure of Sinosteel Anhui Tianyuan Technology, 2015
- Revenue and Net Income of Sinosteel Anhui Tianyuan Technology, 2008-2015
- Revenue Structure of Sinosteel Anhui Tianyuan Technology by Product, 2013-2015
- Revenue Structure of Sinosteel Anhui Tianyuan Technology by Region, 2009-2015
- Equity Structure of Zhongshan Broad-Ocean Motor, 2015
- Employees of Zhongshan Broad-Ocean Motor, 2009-2014
- Revenue and Net Income of Zhongshan Broad-Ocean Motor, 2009-2015
- Revenue Structure of Zhongshan Broad-Ocean Motor by Product, 2013-2015
- Revenue Structure of Zhongshan Broad-Ocean Motor by Region, 2009-2015
- Gross Margin of Zhongshan Broad-Ocean Motor by Product, 2009-2015
- Revenue of Ningbo Co-star Materials Hi-Tech, 2012-2014
- Equity Structure of Chengdu Galaxy Magnets, 2015
- Revenue and Net Income of Chengdu Galaxy Magnets, 2008-2015
- Revenue Structure of Chengdu Galaxy Magnets by Product, 2012-2014
- Revenue Structure of Chengdu Galaxy Magnets by Region, 2011-2015
- NdFeB Revenue and Growth Rate of Chengdu Galaxy Magnets, 2009-2015
- NdFeB Revenue Structure of Chengdu Galaxy Magnets by Product, 2013-2015
- Key R&D Projects of Chengdu Galaxy Magnets, 2015
- Main Production Bases and Capacity of Anhui Earth-Panda Advance Magnetic Material
- Global NdFeB and High-performance NdFeB Output, 2008-2018E
- NdFeB and High-performance NdFeB Output in China, 2007-2018E
- High-performance NdFeB Application Structure in China, 2014/2018E
- Revenue Growth Rate of the World's Major NdFeB Manufacturers, 2009-2015

The Vertical Portal for China Business Intelligence

How to Buy

You can place your order in the following alternative ways:

- 1.Order online at www.researchinchina.com
- 2.Fax order sheet to us at fax number:+86 10 82601570
- 3. Email your order to: report@researchinchina.com
- 4. Phone us at +86 10 82600828/ 82601561

Party A:					
Name:					
Address:					
Contact Person:		Tel			
E-mail:		Fax			

Party B:					
Name:	Beijing Waterwood Technologies Co., Ltd (ResearchInChina)				
Address:	Room 502, Block 3, Tower C, Changyuan Tiandi Building, No. 18, Suzhou Street, Haidian District, Beijing, China 100080				
Contact Person:	Liao Yan	Phone:	86-10-82600828		
E-mail:	report@researchinchina.com	Fax:	86-10-82601570		
Bank details:	Beneficial Name: Beijing Waterwood Technologies Co., Ltd Bank Name: Bank of Communications, Beijing Branch Bank Address: NO.1 jinxiyuan shijicheng,Landianchang,Haidian District,Beijing Bank Account No #: 110060668012015061217 Routing No # : 332906 Bank SWIFT Code: COMMCNSHBJG				

Title Format Cost Total Image: Cost in the second s

Choose type of format

PDF (Single user license)	.2,300	USD
Hard copy	2,500	USD
PDF (Enterprisewide license)	3,500	USD

※ Reports will be dispatched immediately once full payment has been received.Payment may be made by wire transfer or

credit card via PayPal.



The Vertical Portal for China Business Intelligence

RICDB service

About ResearchInChina

ResearchInChina (www.researchinchina.com) is a leading independent provider of China business intelligence. Our research is designed to meet the diverse planning and information needs of businesses, institutions, and professional investors worldwide. Our services are used in a variety of ways, including strategic planning, product and sales forecasting, risk and sensitivity management, and as investment research.

Our Major Activities

- □ Multi-users market reports
- Database-RICDB
- Custom Research
- Company Search

RICDB (<u>http://www.researchinchina.com/data/database.html</u>), is a visible financial data base presented by map and graph covering global and China macroeconomic data, industry data, and company data. It has included nearly 500,000 indices (based on time series), and is continuing to update and increase. The most significant feature of this base is that the vast majority of indices (about 400,000) can be displayed in map.

After purchase of our report, you will be automatically granted to enjoy 2 weeks trial service of RICDB for free.

After trial, you can decide to become our formal member or not. We will try our best to meet your demand. For more information, please find at www.researchinchina.com

For any problems, please contact our service team at: