

THE CHINESE MARKET FOR THERMAL INSULATION PRODUCTS

**© IAL CONSULTANTS
JUNE 2011**

CP House, 97-107 Uxbridge Road, Ealing, London W5 5TL
Tel: +44 (0) 20 8832 7780 Fax: +44 (0) 20 8566 4931
Email: ial@brg.co.uk
Web site: www.ialconsultants.com

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form, or by any means, electronic, mechanical, photocopying, recording or otherwise without the prior permission of the copyright owner.

NOTE

The information given in this report has been compiled from published sources and interpreted from fieldwork based on informed opinions. Whilst every care has been taken in the preparation of the report, there may have been some errors in the information obtained. Although it is impossible to verify every single detail by cross checking, we believe the general picture provided is reasonably accurate and comprehensive.

Many IAL reports contain an overview of selected company financial information and capabilities based on published sources where available. Although the companies represented are believed to be the major suppliers the profiles are meant to be indicative rather than definitive.

It is fundamental to the philosophy of IAL Consultants to constantly seek to extend and improve our service to clients. In pursuit of these aims, we shall be pleased to consider all requests for regular or periodic updating of all or any part of the information contained in this report, or for extensions in coverage in terms of product areas, market sectors and/or geographic regions.

We are, of course, always happy to discuss with any subscriber the possibility of undertaking further work, whether arising out of this report or in different business areas.

MORE INFORMATION ON IAL CONSULTANTS

Should you require more information on either our published reports or our private client services, please contact us at the address given.

Full details on all IAL Consultants published studies (including full tables of contents and tables of tables) and ad-hoc research services can be found on our website:

www.ialconsultants.com

CONTENTS

1. INTRODUCTION	1
1.1 SCOPE OF THE STUDY	1
1.2 METHODOLOGY	1
1.3 PRODUCTS COVERED	1
1.3.1 Mineral Fibre	1
1.3.2 Expanded Polystyrene (EPS)	2
1.3.3 Extruded Polystyrene (XPS)	2
1.3.4 Polyurethane Foam	2
1.3.5 Phenolic Foams	3
1.4 END-USE SECTORS	3
1.4.1 Construction	4
1.4.2 Industrial	4
1.5 PRICES	4
1.6 UNITS OF VOLUME	6
1.7 FORECASTS	8
2. BACKGROUND	9
2.1 DEMOGRAPHIC DATA	9
2.2 CLIMATIC DATA	17
2.3 MACROECONOMIC DATA	19
3. MARKET SUMMARY AND FORECASTS TO 2015	23
3.1 MARKET REVIEW – 2010	23
3.2 MARKET FORECAST – 2015	30
3.3 GROWTH RATES - 2010-2015	37
4. MARKET REVIEW	39
4.1 THE MARKET BY MATERIAL TYPE, 2010-2015	39
4.1.1 General Market	39
4.1.2 Glasswool	44
4.1.3 Stonewool	53
4.1.4 EPS	63
4.1.5 XPS	72
4.1.6 PU	84
4.1.7 Phenolics	96
4.2 THE MARKET BY END-USE APPLICATION, 2010-2015	105
4.3 THE MARKET IN BUILDING & INDUSTRY BY TYPE IN 2010	106
4.4 THE MARKET BY REGION, 2010-2015	108
4.5 GROWTH IN THERMAL INSULATION CONSUMPTION BY END-USE, 2010-2015	109
4.6 GROWTH IN THERMAL INSULATION CONSUMPTION BY TYPE, 2010-2015	110
4.7 GROWTH IN THERMAL INSULATION CONSUMPTION BY REGION	111
5. MARKET INFLUENCES	112
5.1 MACROECONOMIC TRENDS	112
5.1.1 General Construction Trends	112
5.1.2 New Housing Construction	116
5.1.3 New Non-Housing Construction	117
5.2 LEGISLATIVE AND ENVIRONMENTAL FACTORS AFFECTING THE USE OF THERMAL INSULATION PRODUCTS	122
6. SUPPLIERS AND MANUFACTURERS OF THERMAL INSULATION PRODUCTS	124
6.1 PROFILES OF KEY SUPPLIERS	124
6.1.1 Saint-Gobain Group	124
6.1.2 Shanghai Yingying Stonewool and Slagwool Co. Ltd.	127

6.1.3	<i>Xiamen Goot Hi-tech Materials Co. Ltd</i>	129
6.1.4	<i>Knauf Insulation</i>	131
6.1.5	<i>Owens Corning</i>	133
6.1.6	<i>CSR Limited</i>	137
6.1.7	<i>Hebei Huamei Group</i>	139
6.1.8	<i>Beijing New Building Material Co. Ltd</i>	141
6.2	DIRECTORY OF SUPPLIERS.....	144
6.2.1	<i>Mineral Fibre/Glasswool & Stonewool</i>	144
6.2.2	<i>Expanded Polystyrene</i>	150
6.2.3	<i>Extruded Polystyrene</i>	152
6.2.4	<i>PU/Polyisocyanurate</i>	156
6.2.5	<i>Phenolics</i>	165
7.	SOURCES OF INFORMATION	168

TABLE OF TABLES

1. INTRODUCTION	1
1.1 SCOPE OF THE STUDY	1
1.2 METHODOLOGY.....	1
1.3 PRODUCTS COVERED	1
1.4 END-USE SECTORS	3
1.5 PRICES	4
Prices Used, RMB/m ³ (2010).....	5
1.6 UNITS OF VOLUME.....	6
Densities Used, kg/m ³ (2010)	7
1.7 FORECASTS.....	8
2. BACKGROUND	9
2.1 DEMOGRAPHIC DATA	9
Regions of China and the Major Cities, 2009	10
The Chinese Population, 1952-2010.....	14
Chinese Population Distribution, Urban vs. Rural, 1952-2010 (Million and %)	15
Regional Distribution of the Chinese Population and Chinese Population Density, 2009.....	16
2.2 CLIMATIC DATA	17
Monthly Average Temperatures in China's Major Cities, 2009 (°C)	18
2.3 MACROECONOMIC DATA.....	19
Summary of Macroeconomic Trends in China, 2002-2009	20
GDP and GDP Per Capita in China, 1980-2010	21
3. MARKET SUMMARY AND FORECASTS TO 2015	23
3.1 MARKET REVIEW – 2010	23
Total Chinese Thermal Insulation Market Volume by Type and End-use, 2010 (M ³).....	24
Total Chinese Thermal Insulation Market Volume by Type and End-use, 2010 (Tonnes).....	26
Total Chinese Thermal Insulation Market Value by Type and End-use, 2010 (RMB Million).....	28
3.2 MARKET FORECAST – 2015.....	30
Forecast Total Chinese Thermal Insulation Market Volume by Type and End-use, 2015 (M ³)	31
Forecast Total Chinese Thermal Insulation Market Volume by Type and End-use, 2015 (Tonnes)	33
Forecast Total Chinese Thermal Insulation Market Value by Type and End-use, 2015 (RMB Million).....	35
3.3 GROWTH RATES - 2010-2015	37
Growth in Chinese Thermal Insulation Market by Type & End-use, 2010-2015 in M ³ (% Growth pa).....	37
Growth in Chinese Thermal Insulation Market by Type & End-use, 2010-2015 in Tonnes (% Growth pa).....	38
4. MARKET REVIEW	39
4.1 THE MARKET BY MATERIAL TYPE, 2010-2015	39
The Chinese Thermal Insulation Market by Type, 2010-2015 (M ³ & % Share).....	39
The Chinese Thermal Insulation Market by Type, 2010-2015 (Tonnes & % Share).....	40
The Chinese Thermal Insulation Market by Type, 2010-2015 (RMB Million & % Share).....	42
Production of Glasswool Thermal Insulation Materials in China, 2001-2010 (M ³ & % Growth)	45
Production of Glasswool Thermal Insulation Materials in China, 2001-2010 (Tonnes & % Growth)	46
Production of Glasswool Thermal Insulation Materials by Region in China, 2010 (M ³ & % Share)	47
Production of Glasswool Thermal Insulation Materials by Region in China, 2010 (Tonnes & % Share)	47
Major Glasswool Thermal Insulation Materials Manufacturers in China, 2010 (M ³ & Tonnes).....	48
Consumption of Glasswool Thermal Insulation Materials by Region in China, 2010 (M ³ & % Share)	49
Consumption of Glasswool Thermal Insulation Materials by Region in China, 2010 (Tonnes & % Share)	50
Consumption of Glasswool Thermal Insulation Materials by Application in China, 2010 (M ³ & % Share).....	50
Consumption of Glasswool Thermal Insulation Materials by Application in China, 2010 (Tonnes & % Share)	51
Production of Stonewool Thermal Insulation Materials in China, 2001-2010 (M ³ & % Growth).....	54
Production of Stonewool Thermal Insulation Materials in China, 2001-2010 (Tonnes & % Growth)	54
Production of Stonewool Thermal Insulation Materials by Region in China, 2010 (M ³ & % Share).....	55
Production of Stonewool Thermal Insulation Materials by Region in China, 2010 (Tonnes & % Share).....	55
Major Stonewool Thermal Insulation Materials Manufacturers in China, 2010 (M ³ & Tonnes).....	56
Consumption of Stonewool Thermal Insulation Materials by Region in China, 2010 (M ³ & % Share).....	58
Consumption of Stonewool Thermal Insulation Materials by Region in China, 2010 (Tonnes & % Share).....	58
Consumption of Stonewool Thermal Insulation Materials by Application in China, 2010 (M ³ & % Share).....	59

	Consumption of Stonewool Thermal Insulation Materials by Application in China, 2010 (Tonnes & % Share).....	59
	Production of EPS Thermal Insulation Materials in China, 2001-2010 (M ³ & % Growth).....	64
	Production of EPS Thermal Insulation Materials in China, 2001-2010 (Tonnes & % Growth).....	64
	Production of EPS Thermal Insulation Materials by Region in China, 2010 (M ³ & % Share).....	65
	Production of EPS Thermal Insulation Materials by Region in China, 2010 (Tonnes & % Share).....	65
	Major EPS Thermal Insulation Materials Manufacturers in China, 2010 (Tonnes & M ³).....	66
	Consumption of EPS Thermal Insulation Materials by Application in China, 2010 (M ³ & % Share).....	68
	Consumption of EPS Thermal Insulation Materials by Application in China, 2010 (Tonnes & % Share).....	68
	Consumption of EPS Thermal Insulation Materials by Region in China, 2010 (M ³ & % Share).....	69
	Consumption of EPS Thermal Insulation Materials by Region in China, 2010 (Tonnes & % Share).....	69
	Production of XPS Thermal Insulation Materials in China, 2001-2010 (M ³ & % Growth).....	74
	Production of XPS Thermal Insulation Materials in China, 2001-2010 (Tonnes & % Growth).....	74
	Production of XPS Thermal Insulation Materials by Region in China, 2010 (M ³ & % Share).....	75
	Production of XPS Thermal Insulation Materials by Region in China, 2010 (Tonnes & % Share).....	75
	XPS Building Material Production Lines and Capacity by Region in China, 2010 (Lines & M ³).....	76
	Major XPS Thermal Insulation Materials Manufacturers in China, 2010 (M ³ & Tonnes).....	77
	Consumption of XPS Thermal Insulation Materials by Region in China, 2010 (M ³ & % Share).....	79
	Consumption of XPS Thermal Insulation Materials by Region in China, 2010 (Tonnes & % Share).....	79
	Consumption of XPS Thermal Insulation Materials by Application in China, 2010 (M ³ & % Share).....	80
	Consumption of XPS Thermal Insulation Materials by Application in China, 2010 (Tonnes & % Share).....	80
	XPS Prices of Selected Manufacturers in Selected Cities, 2010 (RMB per M ³).....	82
	Production of PU Thermal Insulation Materials in China, 2001-2010 (M ³ & % Growth).....	85
	Production of PU Thermal Insulation Materials in China, 2001-2010 (Tonnes & % Growth).....	85
	Production of PU Thermal Insulation Materials by Region in China, 2010 (M ³ & % Share).....	86
	Production of PU Thermal Insulation Materials by Region in China, 2010 (Tonnes & % Share).....	86
	Major PU Thermal Insulation Materials Manufacturers in China, 2010 (M ³ & Tonnes).....	88
	Consumption of PU Thermal Insulation Materials by Application in China, 2010 (M ³ & % Share).....	90
	Consumption of PU Thermal Insulation Materials by Application in China, 2010 (Tonnes & % Share).....	90
	Consumption of PU Thermal Insulation Materials by Region in China, 2010 (M ³ & % Share).....	91
	Consumption of PU Thermal Insulation Materials by Region in China, 2010 (Tonnes & % Share).....	91
	Production of Phenolic Thermal Insulation Materials in China, 2001-2010 (M ³ & % Growth).....	97
	Production of Phenolic Thermal Insulation Materials in China, 2001-2010 (Tonnes & % Growth).....	98
	Production of Phenolic Thermal Insulation Materials by Region in China, 2010 (M ³ & % Share).....	98
	Production of Phenolic Thermal Insulation Materials by Region in China, 2010 (Tonnes & % Share).....	99
	Major Phenolic Thermal Insulation Materials Manufacturers in China, 2010 (M ³ & Tonnes).....	100
	Technology Used in Producing Phenolic Materials in China in 2010.....	101
	Consumption of Phenolic Thermal Insulation Materials by Application in China, 2010 (M ³ & % Share).....	101
	Consumption of Phenolic Thermal Insulation Materials by Application in China, 2010 (Tonnes & % Share).....	102
	Consumption of Phenolic Thermal Insulation Materials by Region in China, 2010 (M ³ & % Share).....	102
	Consumption of Phenolic Thermal Insulation Materials by Region in China, 2010 (Tonnes & % Share).....	103
4.2	THE MARKET BY END-USE APPLICATION, 2010-2015.....	105
	The Chinese Thermal Insulation Market by End-use, 2010-2015 (M ³ & % Share).....	105
	The Chinese Thermal Insulation Market by End-use, 2010-2015 (Tonnes & % Share).....	105
	The Chinese Thermal Insulation Market by End-use, 2010-2015 (RMB Million & % Share).....	106
4.3	THE MARKET IN BUILDING & INDUSTRY BY TYPE IN 2010.....	106
	The Chinese Market for Thermal Insulation by Type in Building and Industry, 2010 (M ³ & % Share).....	106
	The Chinese Market for Thermal Insulation by Type in Building and Industry, 2010 (Tonnes & % Share).....	107
	The Chinese Market for Thermal Insulation by Type in Building and Industry, 2010 (RMB Million & % Share).....	107
4.4	THE MARKET BY REGION, 2010-2015.....	108
	The Thermal Insulation Material Consumption by Region in China, 2010 (Tonnes).....	108
	The Thermal Insulation Material Consumption by Region in China, 2015 (Tonnes).....	108
4.5	GROWTH IN THERMAL INSULATION CONSUMPTION BY END-USE, 2010-2015.....	109
	Growth of Thermal Insulation Material Consumption by End-use in China, 2010-2015 (M ³ & % Growth pa).....	109
	Growth of Thermal Insulation Material Consumption by End-use in China, 2010-2015 (Tonnes & % Growth pa).....	109
4.6	GROWTH IN THERMAL INSULATION CONSUMPTION BY TYPE, 2010-2015.....	110
	Growth of Thermal Insulation Material Consumption by Type in China, 2010-2015 (M ³ & % Growth pa).....	110
	Growth of Thermal Insulation Material Consumption by Type in China, 2010-2015 (Tonnes & % Growth pa).....	111
4.7	GROWTH IN THERMAL INSULATION CONSUMPTION BY REGION.....	111
	Growth in Thermal Insulation Material Consumption in China by Region, 2010-2015 (% Growth pa).....	111
5.	MARKET INFLUENCES.....	112
5.1	MACROECONOMIC TRENDS.....	112
	Chinese Construction Output by Value, 1999-2009 (RMB 100 Million).....	112
	Regional Construction Output Value in China, 2008-2009 (RMB 100 Million, % Share & % Growth).....	113
	Total Construction Output Value by Branch and Region, 2009 (RMB million).....	114

	Value-added of Construction by Region in China, 2003-2009 (RMB million)	115
	Floor Space of New Housing Construction in Urban and Rural Areas in China, 1990-2009 (Million m ²)	116
	Number of New Dwellings in China, 1990-2009 (Million)	117
	Non-housing Construction by Sector in China, 1997-2009 (10,000 m ²)	118
	Non-Housing Market in China by Sector & by Region, 2009 (10,000 m ² and % Share)	119
	Number of Selected Non-housing Buildings in China, 1998-2009	121
5.2	LEGISLATIVE AND ENVIRONMENTAL FACTORS AFFECTING THE USE OF THERMAL INSULATION PRODUCTS	122
6.	SUPPLIERS AND MANUFACTURERS OF THERMAL INSULATION PRODUCTS	124
6.1	PROFILES OF KEY SUPPLIERS	124
	Saint-Gobain (China) Turnover, 2002-2010 (RMB million)	125
	Production Sites of Saint-Gobain Isover Thermal Insulation Material in China, 2010	126
	Shanghai Yingying Stonewool and Slagwool Performance, 2010-2012 (TPA, Tonnes and RMB million)	127
	Knauf Thermal Insulation Material (China) Co. Ltd Performance, 2005-2009 (TPA, Tonnes and € billion)	132
	Kanuf Insulation in China, 2010	132
	Owens Corning in China, 1994-2010	134
	Owens Corning Insulation Capacity in China, 2010 (M ³)	135
	Owens Corning Insulation Production in China, 2010 (M ³)	136
	Insulation Plants of CSR in Asia Pacific, 2010	138
	Beijing New Building Material Co. Ltd Performance, 2008-2010 (RMB million)	142
	Production Sites of Beijing New Building Material Co. Ltd in China	143
6.2	DIRECTORY OF SUPPLIERS	144
7.	SOURCES OF INFORMATION	168