

THE EUROPEAN MARKET FOR STRUCTURAL ADHESIVES

© IAL CONSULTANTS

APRIL 2008

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 constantly to 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.brg.co.uk

CONTENTS

1. INTRODUCTION.....	1
1.1 SCOPE OF STUDY.....	1
1.2 METHODOLOGY.....	2
1.3 PRODUCTS COVERED.....	2
1.4 END-USE MARKETS COVERED.....	3
1.5 UNITS OF VOLUME.....	4
1.6 FORECASTS.....	4
2. EUROPEAN SUMMARY.....	5
2.1 EUROPEAN MARKET SUMMARY.....	5
2.2 EUROPEAN SUMMARY BY ADHESIVE TYPE AND COUNTRY.....	9
2.3 EUROPEAN SUMMARY BY END-USE SECTOR AND COUNTRY.....	13
3. THE MARKET FOR STRUCTURAL ADHESIVES BY TYPE.....	17
3.1 INTRODUCTION.....	17
3.2 ANAEROBIC STRUCTURAL ADHESIVES.....	18
3.2.1 <i>Technical Background</i>	18
3.2.2 <i>Market Overview</i>	19
3.2.3 <i>The European Market for Anaerobic Structural Adhesives 2007-2012</i>	20
3.3 CYANOACRYLATE STRUCTURAL ADHESIVES.....	23
3.3.1 <i>Technical Background</i>	23
3.3.2 <i>Market Overview</i>	23
3.3.3 <i>The European Market for Cyanoacrylate Structural Adhesives 2007-2012</i>	24
3.4 EPOXY STRUCTURAL ADHESIVES.....	27
3.4.1 <i>Technical Background</i>	27
3.4.2 <i>Market Overview</i>	27
3.4.3 <i>The European Market for Epoxy Structural Adhesives 2007-2012</i>	29
3.5 PHENOLIC RESIN STRUCTURAL ADHESIVES.....	35
3.5.1 <i>Technical Background</i>	35
3.5.2 <i>Market Overview</i>	35
3.5.3 <i>The European Market for Phenolic Resin Structural Adhesives 2007-2012</i>	36
3.6 POLYIMIDE STRUCTURAL ADHESIVES.....	39
3.6.1 <i>Technical Background</i>	39
3.6.2 <i>Market Overview</i>	39
3.6.3 <i>The European Market for Polyimide Structural Adhesives 2007-2012</i>	40
3.7 POLYURETHANE STRUCTURAL ADHESIVES.....	43
3.7.1 <i>Technical Background</i>	43
3.7.2 <i>Market Overview</i>	43
3.7.3 <i>The European Market for Polyurethane Structural Adhesives 2007-2012</i>	45
3.8 SILICONE STRUCTURAL ADHESIVES.....	48
3.8.1 <i>Technical Background</i>	48
3.8.2 <i>Market Overview</i>	48
3.8.3 <i>The European Market for Silicone Structural Adhesives 2007-2012</i>	49
3.9 ACRYLIC STRUCTURAL ADHESIVES.....	52
3.9.1 <i>Technical Background</i>	52

3.9.2	Market Overview.....	53
3.9.3	The European Market for Acrylic Structural Adhesives 2007-2012	54
3.10	UV CURING STRUCTURAL ADHESIVES	60
3.10.1	Technical Background	60
3.10.2	Market Overview.....	61
3.10.3	The European Market for UV Curing Structural Adhesives 2007-2012	62
4.	THE MARKET FOR STRUCTURAL ADHESIVES BY END-USE SECTOR	65
4.1	AEROSPACE	66
4.1.1	Industry Overview	66
4.1.2	Consumption of Structural Adhesives in the Aerospace Sector.....	70
4.1.3	Market Trends Affecting Structural Adhesive Consumption	73
4.2	AUTOMOTIVE	74
4.2.1	Industry Overview	74
4.2.2	Consumption of Structural Adhesives in the Automotive Sector	80
4.2.3	Market Trends Affecting Structural Adhesive Consumption	83
4.3	DOMESTIC APPLIANCES	86
4.3.1	Industry Overview	86
4.3.2	Consumption of Structural Adhesives in the Domestic Appliance Sector	89
4.3.3	Market Trends Affecting Structural Adhesive Consumption	92
4.4	ELECTRICAL & ELECTRONIC	93
4.4.1	Industry Overview	93
4.4.2	Consumption of Structural Adhesives in the Electrical & Electronic Sectors	106
4.4.3	Market Trends Affecting Structural Adhesive Consumption	109
4.5	GENERAL INDUSTRY	110
4.5.1	Industry Overview	110
4.5.2	Consumption of Structural Adhesives in the General Industry Sector	112
4.5.3	Market Trends Affecting Structural Adhesive Consumption	115
4.6	MARINE.....	117
4.6.1	Industry Overview	117
4.6.2	Consumption of Structural Adhesives in the Marine Sector.....	123
4.6.3	Market Trends Affecting Structural Adhesive Consumption	126
4.7	OTHER LAND TRANSPORT	127
4.7.1	Industry Overview	127
4.7.2	Consumption of Structural Adhesives in the Land Transport Sector	131
4.7.3	Market Trends Affecting Structural Adhesive Consumption	134
4.8	SANDWICH PANELS	136
4.8.1	Industry Overview	136
4.8.2	Consumption of Structural Adhesives in the Sandwich Panel Sector.....	145
4.8.3	Market Trends Affecting Structural Adhesive Consumption	148
5.	SUPPLIERS.....	149
5.1	KEY EUROPEAN SUPPLIERS OF STRUCTURAL ADHESIVES.....	149
5.2	SUPPLIER PROFILES	152
5.2.1	3M	152
5.2.2	Bostik.....	154
5.2.3	H B Fuller	156
5.2.4	Henkel.....	158
5.2.5	National Starch & Chemical.....	160
5.3	DIRECTORY OF SUPPLIERS	162

5.3.1	Austria.....	162
5.3.2	Belgium.....	162
5.3.3	Denmark.....	163
5.3.4	Finland.....	164
5.3.5	France.....	164
5.3.6	Germany.....	167
5.3.7	Ireland.....	169
5.3.8	Italy.....	170
5.3.9	Netherlands.....	172
5.3.10	Norway.....	173
5.3.11	Portugal.....	173
5.3.12	Spain.....	174
5.3.13	Sweden.....	174
5.3.14	Switzerland.....	175
5.3.15	United Kingdom.....	176
6.	SOURCES OF INFORMATION.....	181
6.1	EUROPEAN ADHESIVES ASSOCIATIONS.....	181
6.1.1	Austria.....	181
6.1.2	Belgium.....	181
6.1.3	Denmark.....	181
6.1.4	Finland.....	181
6.1.5	France.....	181
6.1.6	Germany.....	182
6.1.7	Italy.....	182
6.1.8	Netherlands.....	182
6.1.9	Norway.....	182
6.1.10	Portugal.....	182
6.1.11	Spain.....	183
6.1.12	Sweden.....	183
6.1.13	Switzerland.....	183
6.1.14	United Kingdom.....	183
6.2	END-USE INDUSTRY ASSOCIATIONS.....	184

TABLE OF TABLES

1. INTRODUCTION.....	1
1.1 SCOPE OF STUDY	1
1.2 METHODOLOGY.....	2
1.3 PRODUCTS COVERED	2
1.4 END-USE MARKETS COVERED	3
1.5 UNITS OF VOLUME.....	4
1.6 FORECASTS	4
2. EUROPEAN SUMMARY	5
2.1 EUROPEAN MARKET SUMMARY	5
The European Market for Structural Adhesives by Type, 2007-2012 (Tonnes)	5
Total European Consumption of Structural Adhesives by Type and End-use, 2007 (Tonnes)	6
Forecast Total European Consumption of Structural Adhesives by Type and End-use, 2012 (Tonnes).....	7
Forecast European Market Growth in Structural Adhesives by Type and End-use, 2007-2012 (% Growth p.a.)	8
2.2 EUROPEAN SUMMARY BY ADHESIVE TYPE AND COUNTRY	9
Total European Consumption of Structural Adhesives by Type and Country, 2007 (Tonnes).....	10
Forecast Total European Consumption of Structural Adhesives by Type and Country, 2012 (Tonnes).....	11
Forecast European Market Growth in Structural Adhesives by Type and Country, 2007-2012 (% Growth p.a.)	12
2.3 EUROPEAN SUMMARY BY END-USE SECTOR AND COUNTRY	13
Total European Consumption of Structural Adhesives by End-use and Country, 2007 (Tonnes)	14
Forecast Total European Consumption of Structural Adhesives by End-use and Country, 2012 (Tonnes).....	15
Forecast European Market Growth in Structural Adhesives by End-use and Country, 2007-2012 (% Growth p.a.)....	16
3. THE MARKET FOR STRUCTURAL ADHESIVES BY TYPE	17
3.1 INTRODUCTION.....	17
3.2 ANAEROBIC STRUCTURAL ADHESIVES	18
European Consumption of Anaerobic Structural Adhesives by Country and End-use, 2007 (Tonnes).....	20
Forecast European Consumption of Anaerobic Structural Adhesives by Country and End-use, 2012 (Tonnes).....	21
Forecast European Market Growth in Anaerobic Structural Adhesives by Country and End-use, 2007-2012 (% Growth p.a.).....	22
3.3 CYANOACRYLATE STRUCTURAL ADHESIVES	23
European Consumption of Cyanoacrylate Structural Adhesives by Country and End-use, 2007 (Tonnes).....	24
Forecast European Consumption of Cyanoacrylate Structural Adhesives by Country and End-use, 2012 (Tonnes) ..	25
Forecast European Market Growth in Cyanoacrylate Structural Adhesives by Country and End-use, 2007-2012 (% Growth p.a.).....	26
3.4 EPOXY STRUCTURAL ADHESIVES	27
European Consumption of Epoxy Film Structural Adhesives by Country and End-use, 2007 (Tonnes).....	29
Forecast European Consumption of Epoxy Film Structural Adhesives by Country and End-use, 2012 (Tonnes)	30
Forecast European Market Growth in Epoxy Film Structural Adhesives by Country and End-use, 2007-2012 (% Growth p.a.).....	31
European Consumption of Epoxy Paste Structural Adhesives by Country and End-use, 2007 (Tonnes).....	32
Forecast European Consumption of Epoxy Paste Structural Adhesives by Country and End-use, 2012 (Tonnes).....	33
Forecast European Market Growth in Epoxy Paste Structural Adhesives by Country and End-use, 2007-2012 (% Growth p.a.).....	34
3.5 PHENOLIC RESIN STRUCTURAL ADHESIVES	35
European Consumption of Phenolic Resin Structural Adhesives by Country and End-use, 2007 (Tonnes).....	36
Forecast European Consumption of Phenolic Resin Structural Adhesives by Country and End-use, 2012 (Tonnes) ..	37
Forecast European Market Growth in Phenolic Resin Structural Adhesives by Country and End-use, 2007-2012 (% Growth p.a.).....	38
3.6 POLYIMIDE STRUCTURAL ADHESIVES.....	39
European Consumption of Polyimide Structural Adhesives by Country and End-use, 2007 (Tonnes)	40
Forecast European Consumption of Polyimide Structural Adhesives by Country and End-use, 2012 (Tonnes).....	41
Forecast European Market Growth in Polyimide Structural Adhesives by Country and End-use, 2007-2012 (% Growth p.a.).....	42

3.7	POLYURETHANE STRUCTURAL ADHESIVES.....	43
	European Consumption of Polyurethane Structural Adhesives by Country and End-use, 2007 (Tonnes).....	45
	Forecast European Consumption of Polyurethane Structural Adhesives by Country and End-use, 2012 (Tonnes).....	46
	Forecast European Market Growth in Polyurethane Structural Adhesives by Country and End-use, 2007-2012 (% Growth p.a.).....	47
3.8	SILICONE STRUCTURAL ADHESIVES	48
	European Consumption of Silicone Structural Adhesives by Country and End-use, 2007 (Tonnes).....	49
	Forecast European Consumption of Silicone Structural Adhesives by Country and End-use, 2012 (Tonnes).....	50
	Forecast European Market Growth in Silicone Structural Adhesives by Country and End-use, 2007-2012 (% Growth p.a.).....	51
3.9	ACRYLIC STRUCTURAL ADHESIVES	52
	European Consumption of Toughened Acrylic Structural Adhesives by Country and End-use, 2007 (Tonnes).....	54
	Forecast European Consumption of Toughened Acrylic Structural Adhesives by Country and End-use, 2012 (Tonnes).....	55
	Forecast European Market Growth for Toughened Acrylic Structural Adhesives by Country and End-use, 2007-2012 (% Growth p.a.).....	56
	European Consumption of Other Acrylic Structural Adhesives by Country and End-use, 2007 (Tonnes).....	57
	Forecast European Consumption of Other Acrylic Structural Adhesives by Country and End-use, 2012 (Tonnes).....	58
	Forecast European Market Growth in Other Acrylic Structural Adhesives by Country and End-use, 2007-2012 (% Growth p.a.).....	59
3.10	UV CURING STRUCTURAL ADHESIVES	60
	European Consumption of UV Curing Structural Adhesives by Country and End-use, 2007 (Tonnes).....	62
	Forecast European Consumption of UV Curing Structural Adhesives by Country and End-use, 2012 (Tonnes).....	63
	Forecast European Market Growth in UV Curing Structural Adhesives by Country and End-use, 2007-2012 (% Growth p.a.).....	64
4.	THE MARKET FOR STRUCTURAL ADHESIVES BY END-USE SECTOR	65
4.1	AEROSPACE	66
	Breakdown of EU Aerospace Industry Turnover by Product Segment, 2006 (€Million).....	67
	Contribution to Direct EU Aerospace Industry Employment by Country, 2006 (No. of Employees '000).....	68
	European Consumption of Structural Adhesives in the Aerospace Sector by Type and Country, 2007 (Tonnes).....	70
	Forecast European Consumption of Structural Adhesives in the Aerospace Sector by Type and Country, 2012 (Tonnes).....	71
	Forecast European Market Growth in Structural Adhesives Used in the Aerospace Sector by Type and Country, 2007-2012 (% Growth p.a.).....	72
4.2	AUTOMOTIVE	74
	Global Production of Passenger Vehicles by Region, 2003-2006 ('000 Units).....	74
	The Share in Global New Registrations of Passenger Cars by Region, 2006 (%).....	75
	West European Production of Passenger Cars by Country, 2004-2007 (Units).....	76
	West European New Registrations of Passenger Cars by Country, 2004-2007 (Units).....	77
	Forecast European Production of Passenger Cars by Manufacturer, 2007-2010 (Units).....	78
	European Consumption of Structural Adhesives in the Automotive Sector by Type and Country, 2007 (Tonnes).....	80
	Forecast European Consumption of Structural Adhesives in the Automotive Sector by Type and Country, 2012 (Tonnes).....	81
	Forecast European Market Growth in Structural Adhesives Used in the Automotive Sector by Type and Country, 2007-2012 (% Growth p.a.).....	82
4.3	DOMESTIC APPLIANCES	86
	West European Production of Domestic Appliances by Country, 2006 ('000 Units).....	86
	Western European Market Shares of Domestic Appliances Manufacturers, 2006 (%).....	87
	European Consumption of Structural Adhesives in the Domestic Appliance Sector by Type and Country, 2007 (Tonnes).....	89
	Forecast European Consumption of Structural Adhesives in the Domestic Appliance Sector by Type and Country, 2012 (Tonnes).....	90
	Forecast European Market Growth in Structural Adhesives Used in the Domestic Appliance Sector by Type and Country, 2007-2012 (% Growth p.a.).....	91
4.4	ELECTRICAL & ELECTRONIC	93
	Global Sales of Semiconductors by Region, 2005-2007 (US\$ Billion).....	93
	Growth in West European Production of Electronic Equipment & Components by Country, 2001-2004 (%).....	94

	Total West European Production of Electronics Equipment & Components by Product Type, 2001-2004 (€Million)	95
	Austrian Production of Electronics Equipment & Components, 2001-2004 (€Million)	97
	Belgian Production of Electronics Equipment & Components, 2001-2004 (€Million)	98
	Danish Production of Electronics Equipment & Components, 2001-2004 (DKr Million)	98
	Finnish Production of Electronics Equipment & Components, 2001-2004 (€Million)	99
	French Production of Electronics Equipment & Components, 2001-2004 (€Million)	99
	German Production of Electronics Equipment & Components, 2001-2004 (€Million)	100
	Greek Production of Electronics Equipment & Components, 2001-2004 (€Million)	100
	Irish Production of Electronics Equipment & Components, 2001-2004 (€Million)	101
	Italian Production of Electronics Equipment & Components, 2001-2004 (€Million)	101
	Netherlands Production of Electronics Equipment & Components, 2001-2004 (€Million)	102
	Norwegian Production of Electronics Equipment & Components, 2001-2004 (Nkr Million)	102
	Portuguese Production of Electronics Equipment & Components, 2001-2004 (€Million)	103
	Spanish Production of Electronics Equipment & Components, 2001-2004 (€Million)	103
	Swedish Production of Electronics Equipment & Components, 2001-2004 (SKr Million)	104
	Swiss Production of Electronics Equipment & Components, 2001-2004 (SFr Million)	104
	UK Production of Electronics Equipment & Components, 2001-2004 (£ Million)	105
	European Consumption of Structural Adhesives in the Electrical & Electronic Sectors by Type and Country, 2007 (Tonnes)	106
	Forecast European Consumption of Structural Adhesives in the Electrical & Electronic Sectors by Type and Country, 2012 (Tonnes)	107
	Forecast European Market Growth in Structural Adhesives Used in the Electrical & Electronic Sectors by Type and Country, 2007-2012 (% Growth p.a.)	108
4.5	GENERAL INDUSTRY	110
	Total Number of Players Affiliated to a Golf Club in Europe & Total Number of Golf Courses, 2000-2007	111
	European Consumption of Structural Adhesives in the General Industry Sector by Type and Country, 2007 (Tonnes)	112
	Forecast European Consumption of Structural Adhesives in the General Industry Sector by Type and Country, 2012 (Tonnes)	113
	Forecast European Market Growth in Structural Adhesives Used in the General Industry Sector by Type and Country, 2007-2012 (% Growth p.a.)	114
4.6	MARINE	117
	European Boat Park, 2004 (Units)	119
	West European Production of Boats by Country, 2004 (Units)	120
	West European Import and Export of Boats, 2004 (Units)	121
	West European Pleasure Boat Sales by Country, 2004 (€Million)	122
	European Consumption of Structural Adhesives in the Marine Sector by Type and Country, 2007 (Tonnes)	123
	Forecast European Consumption of Structural Adhesives in the Marine Sector by Type and Country, 2012 (Tonnes)	124
	Forecast European Market Growth in Structural Adhesives Used in the Marine Sector by Type and Country, 2007-2012 (% Growth p.a.)	125
4.7	OTHER LAND TRANSPORT	127
	West European Production of Commercial Vehicles by Country (Units) and growth rate (%) 2005-2007	127
	West European Production of Commercial Vehicles by Type and Country in 2007 (Units)	128
	Major European Manufacturers of Buses and Coaches	128
	European Consumption of Structural Adhesives in the Land Transport Sector by Type and Country, 2007 (Tonnes)	131
	Forecast European Consumption of Structural Adhesives in the Land Transport Sector by Type and Country, 2012 (Tonnes)	132
	Forecast European Market Growth in Structural Adhesives Used in the Land Transport Sector by Type and Country, 2007-2012 (% Growth p.a.)	133
4.8	SANDWICH PANELS	136
	Total Construction Output in Western Europe by Country, 2006-2009 (€billions)	136
	Total Construction Output in Western Europe - Annual Growth Rates by Country, 2006-2009 (%)	137
	Total Construction Output in Western Europe by Activity Segment, 2006-2009 (€billions)	137
	Main Applications for Materials Used in the Construction of Sandwich Panels	141

West European Sandwich Panel Capacity & Production by Country, 2007 (m ²)	142
Total West European Sandwich Panel Production by End-Use Application, 2007 (%)	143
Registrations of Caravans in Western Europe 2005-2006 (Units) and Growth (%).....	144
European Consumption of Structural Adhesives for Sandwich Panel Manufacture by Type and Country, 2007 (Tonnes).....	145
Forecast European Consumption of Structural Adhesives for Sandwich Panel Manufacture by Type and Country, 2012 (Tonnes).....	146
Forecast European Market Growth in Structural Adhesives Used for Sandwich Panel Manufacture by Type and Country, 2007-2012 (% Growth p.a.).....	147
5. SUPPLIERS.....	149
5.1 KEY EUROPEAN SUPPLIERS OF STRUCTURAL ADHESIVES.....	149
Leading European Suppliers of Structural Adhesives by Type.....	149
5.2 SUPPLIER PROFILES	152
5.3 DIRECTORY OF SUPPLIERS	162
6. SOURCES OF INFORMATION.....	181
6.1 EUROPEAN ADHESIVES ASSOCIATIONS.....	181
6.2 END-USE INDUSTRY ASSOCIATIONS.....	184
