ADHESIVES AND ADHESIVE APPLYING EQUIPMENT: TECHNOLOGIES AND GLOBAL MARKETS



CHM073B August 2015

Srinivasa Rajaram **Project Analyst**

ISBN: 1-62296-128-5



BCC Research
49 Walnut Park, Building 2
Wellesley, MA 02481 USA
866-285-7215 (toll-free within the USA),
or (+1) 781-489-7301
www.bccresearch.com
information@bccresearch.com

TABLE OF CONTENTS

TOPIC	PAGE NO.
	_
CHAPTER 1 INTRODUCTION	2
STUDY GOALS AND OBJECTIVES	2
REASONS FOR DOING THE STUDY	3
INTENDED AUDIENCE	3
SCOPE OF REPORT	3
INFORMATION SOURCES	4
ANALYST'S CREDENTIALS	4
RELATED BCC RESEARCH REPORTS	4
BCC RESEARCH WEBSITE	4
DISCLAIMER	5
CHAPTER 2 SUMMARY	7
OVERVIEW	7
GLOBAL ADHESIVE AND ADHESIVE-APPLYING EQUIPMENT MARKET	8
SUMMARY TABLE GLOBAL ADHESIVE AND ADHESIVE-APPLYING EQUIPMENT	0
MARKET, THROUGH 2021 (\$ MILLIONS)	9
SUMMARY FIGURE GLOBAL ADHESIVE AND ADHESIVE-APPLYING EQUIPMENT MARKET, 2014-2021 (\$ MILLIONS)	9
CHAPTER 3 OVERVIEW	11
INDUSTRY DEFINITION	11
INDUSTRY CONCEPTS	11
INDUSTRY IMPORTANCE	11
ADHESIVE LIFE CYCLE ASSESSMENT	12
TECHNOLOGY LIFE CYCLE	13
ADHESIVE HISTORY AND DEVELOPMENT	13
EARLY HISTORY OF ADHESIVES	14
HISTORY OF ADHESIVES IN WOODWORKING	15
RECENT ADHESIVE HISTORY	15
GOVERNMENT REGULATIONS	15
U.S. GREEN BUILDING PROGRAMS	16
GLOBAL GREEN-RATING PROGRAMS	17
Green Seal	17
Green-Guard Environmental Institute	17
Green Label Plus	17
EMICODE	17
ENVIRONMENTAL PROTECTION	17
Air	18
Water	18
Soil	18
ADHESIVES IN INDUSTRIAL USE	18
ADHESIVES IN HOME USE	19
INDUSTRIAL AND CONSUMER SAFETY	19
Physically Hardening Additives	19
Hot-Melt Adhesives	19
Organic Solvent-Based Adhesives	20
· · · · · · · · · · · · · · · · · · ·	

Water-Based Adhesives	PAGE NO.
	20
Plastisols	20
Chemically-Curing Adhesives	20
Single-Component Heat-Curing Adhesives	21
Moisture Curing Adhesives	21
Cyanoacrylate Adhesives	21
Anaerobic Adhesives	21
Radiation Cure Adhesives	22
Silicone Adhesives	22
Two-Component Adhesives	22
Pressure Sensitive Adhesives	23
CHAPTER 4 GLOBAL ADHESIVE AND ADHESIVE-APPLYING EQUIPMENT MARKET	25
OVERVIEW	25
ADHESIVE MARKET	25
GLOBAL ADHESIVE MARKET BASED ON CURING TECHNOLOGIES	26
TABLE 1 GLOBAL ADHESIVE MARKET BASED ON CURING TECHNOLOGIES,	26
THROUGH 2021 (\$ MILLIONS)	
FIGURE 1 GLOBAL ADHESIVE MARKET BASED ON CURING TECHNOLOGIES, 2014-2021 (\$ MILLIONS)	26
GLOBAL ADHESIVE MARKET BASED ON CHEMISTRY	27
HOT-MELT ADHESIVES	27
ACRYLIC ADHESIVES	27
PRESSURE-SENSITIVE ADHESIVES	27
EPOXY ADHESIVES	27
REACTIVE POLYURETHANE ADHESIVES	27
POLYVINYL ADHESIVES	28
CYANOACRYLIC ADHESIVES	28
ANAEROBIC ADHESIVES	28
MISCELLANEOUS ADHESIVES	28
TABLE 2 GLOBAL ADHESIVE MARKET BASED ON CHEMISTRY, THROUGH 2021 (\$ MILLIONS)	28
FIGURE 2 GLOBAL ADHESIVE MARKET BASED ON CHEMISTRY, 2014-2021 (\$ MILLIONS)	29
GLOBAL ADHESIVE MARKETS BY REGION	29
TABLE 3 GLOBAL ADHESIVE MARKETS BY REGION, THROUGH 2021 (\$ MILLIONS)	29
FIGURE 3 GLOBAL ADHESIVE MARKETS BY REGION, 2014-2021 (\$ MILLIONS)	30
ASIA-PACIFIC ADHESIVE MARKET BY COUNTRY	30
TABLE 4 ASIA-PACIFIC ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	30
EUROPEAN ADHESIVE MARKET BY COUNTRY	31
TABLE 5 EUROPEAN ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	31
NORTH AMERICAN ADHESIVE MARKET BY COUNTRY	31
TABLE 6 NORTH AMERICAN ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	31
REST OF THE WORLD ADHESIVE MARKET BY COUNTRY	32
TABLE 7 REST OF THE WORLD ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	32
GLOBAL HOT-MELT ADHESIVE MARKET	32

TOPIC	PAGE NO.
TABLE 8 GLOBAL HOT-MELT ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS)	33
GLOBAL ACRYLIC ADHESIVE MARKET	33
TABLE 9 GLOBAL ACRYLIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS)	34
FIGURE 4 GLOBAL ACRYLIC ADHESIVE MARKET BY TYPE, 2014-2021 (\$ MILLIONS)	34
GLOBAL PRESSURE-SENSITIVE ADHESIVE MARKET	34
TABLE 10 GLOBAL PRESSURE-SENSITIVE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS)	35
FIGURE 5 GLOBAL PRESSURE-SENSITIVE ADHESIVE MARKET BY TYPE, 2014-2021 (\$ MILLIONS)	35
GLOBAL EPOXY ADHESIVE MARKET	36
TABLE 11 GLOBAL EPOXY ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS)	36
FIGURE 6 GLOBAL EPOXY ADHESIVE MARKET BY TYPE, 2014-2021 (\$ MILLIONS)	36
GLOBAL REACTIVE POLYURETHANE ADHESIVE MARKET	37
TABLE 12 GLOBAL REACTIVE POLYURETHANE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS)	37
FIGURE 7 GLOBAL REACTIVE POLYURETHANE ADHESIVE MARKET BY TYPE, 2014-2021 (\$ MILLIONS)	37
GLOBAL POLYVINYL ADHESIVE MARKET	38
TABLE 13 GLOBAL POLYVINYL ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS)	38
FIGURE 8 GLOBAL POLYVINYL ADHESIVE MARKET BY TYPE, 2014-2021 (\$ MILLIONS)	38
GLOBAL CYANOACRYLIC ADHESIVE MARKET	39
TABLE 14 GLOBAL CYANOACRYLIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS)	40
FIGURE 9 GLOBAL CYANOACRYLIC ADHESIVE MARKET BY TYPE, 2014-2021 (\$ MILLIONS)	40
GLOBAL ANAEROBIC ADHESIVE MARKET	40
TABLE 15 GLOBAL ANAEROBIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS)	41
FIGURE 10 GLOBAL ANAEROBIC ADHESIVE MARKET BY TYPE, 2014-2021 (\$ MILLIONS)	41
GLOBAL MISCELLANEOUS ADHESIVE MARKET	42
TABLE 16 GLOBAL MISCELLANEOUS ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS)	42
FIGURE 11 GLOBAL MISCELLANEOUS ADHESIVE MARKET BY TYPE, 2014-2021 (\$ MILLIONS)	42
ADHESIVE APPLYING EQUIPMENT OVERVIEW	43
GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET	44
TABLE 17 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS)	44
FIGURE 12 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY TYPE, 2014-2021 (\$ MILLIONS)	44
ADHESIVE UNLOADING EQUIPMENT	45
Adhesive Unloading Equipment Market	46
TABLE 18 GLOBAL ADHESIVE UNLOADING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS)	46
FIGURE 13 GLOBAL ADHESIVE UNLOADING EQUIPMENT MARKET BY TYPE, 2014-2021 (\$ MILLIONS)	46

TOPIC	PAGE NO.
ADHESIVE DISPENSING SYSTEMS	47
Adhesive Dispensing Systems Market	48
TABLE 19 GLOBAL ADHESIVE DISPENSING SYSTEMS MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS)	48
FIGURE 14 GLOBAL ADHESIVE DISPENSING SYSTEMS MARKET BY TYPE, 2014-2021 (\$ MILLIONS)	48
ADHESIVE EQUIPMENT BASED ON APPLICATION PROCESS	49
Dot and Bead Application Process	49
Hand Gun	49
Automatic Pneumatic Gun	50
Automatic Electric Gun	50
Jetting	50
Spray Application Process	51
Air Spray	51
Airless Spray	51
Fiberized Spray	51
Web-Coating Application Process	52
Slot Applicator	52
Wheel and Roller	52
Dip	52
Wheel Application Process	52
Brush Application Process	52
Adhesive Equipment Market by Application Process	52
TABLE 20 GLOBAL ADHESIVE EQUIPMENT MARKET BY APPLICATION PROCESS, THROUGH 2021 (\$ MILLIONS)	53
FIGURE 15 GLOBAL ADHESIVE EQUIPMENT MARKET BY APPLICATION PROCESS, 2014-2021 (\$ MILLIONS)	53
AUXILIARY EQUIPMENT	53
Robotics	54
Web Handling	54
Controls	54
Surface Preparation	54
Curing	55
Foaming	56
Auxiliary Equipment Market	56
TABLE 21 TABLE 21 GLOBAL ADHESIVE AUXILIARY EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS)	56
FIGURE 16 GLOBAL ADHESIVE AUXILIARY EQUIPMENT MARKET BY TYPE, 2014-2021 (\$ MILLIONS)	56
GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY REGION	57
TABLE 22 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY REGION, THROUGH 2021 (\$ MILLIONS)	57
FIGURE 17 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY REGION, 2014-2021 (\$ MILLIONS)	57
ASIA-PACIFIC ADHESIVE-APPLYING EQUIPMENT MARKETBY COUNTRY	58
TABLE 23 ASIA-PACIFIC ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	58
EUROPEAN ADHESIVE-APPLYING MARKET EQUIPMENT BY COUNTRY	59

TABLE 24 EUROPEAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY,	
THROUGH 2021 (\$ MILLIONS)	59
NORTH AMERICAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY	59
TABLE 25 NORTH AMERICAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	60
REST OF THE WORLD ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY	60
TABLE 26 REST OF THE WORLD ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	60
CHAPTER 5 ADHESIVE MARKET BY APPLICATION	62
GLOBAL ADHESIVE MARKET BY APPLICATION	62
TABLE 27 GLOBAL ADHESIVE MARKET BY APPLICATION, THROUGH 2021 (\$	02
MILLIONS)	62
FIGURE 18 GLOBAL ADHESIVE MARKET BY APPLICATION, 2014-2021 (\$ MILLIONS)	63
PAPER, BOARD AND RELATED PRODUCT PACKAGING APPLICATIONS	63
GLOBAL ADHESIVE MARKET IN PAPER, BOARD AND RELATED PRODUCT PACKAGE APPLICATIONS	64
TABLE 28 GLOBAL ADHESIVE MARKET IN PAPER, BOARD AND RELATED PRODUCT PACKAGING APPLICATIONS BY PRODUCT, THROUGH 2021 (\$ MILLIONS)	64
FIGURE 19 GLOBAL ADHESIVE MARKET IN PAPER, BOARD AND RELATED PRODUCT PACKAGING APPLICATIONS BY PRODUCT, 2014-2021 (\$ MILLIONS)	64
ADHESIVES IN CONVERTING AND PACKAGING APPLICATIONS	65
TABLE 29 ADHESIVES IN CONVERTING AND PACKAGING APPLICATIONS	66
Adhesives in Bag-Forming and Sealing Applications	68
Adhesives in Clear Box Manufacturing Applications	68
Adhesives in Envelope Manufacturing Applications	69
Adhesives in Laminating Board with Paper Applications	69
Adhesives in Multiwall Bags and Specialty Bag Applications	69
Adhesives in Apparel Laminate Applications	69
Adhesives in Frozen Food Storage Applications	69
Adhesives in Architectural Wall Panel Applications	70
Adhesives in Tissues and Towels Applications	70
Adhesive Market in Converting and Packaging Applications	70
TABLE 30 GLOBAL ADHESIVE MARKET IN CONVERTING AND PACKAGING APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	70
ADHESIVES IN FLEXIBLE PACKAGING APPLICATIONS	71
TABLE 31 ADHESIVES FOR FLEXIBLE PACKAGING APPLICATIONS	71
Adhesive Market in Flexible Packaging Applications	74
TABLE 32 GLOBAL ADHESIVES IN FLEXIBLE PACKAGING APPLICATIONS MARKET, THROUGH 2021 (\$ MILLIONS)	74
ADHESIVES IN HIGH-GLOSS LAMINATING APPLICATIONS	74
Adhesive Market in High-Gloss Laminating Applications	75
TABLE 33 GLOBAL ADHESIVE MARKET IN HIGH-GLOSS LAMINATING APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	75
ADHESIVES IN NONWOVEN FABRIC APPLICATIONS	75
TABLE 34 ADHESIVES IN NONWOVEN FABRIC APPLICATIONS	76
Adhesives in Diaper Applications	76
Adhesives in Feminine Hygiene Applications	76
Adhesives in Adult Incontinence Applications	76

TOPIC	PAGE NO.
Adhesives in Surgical Gown Applications	77
Adhesive Market in Nonwoven Fabric Applications	77
TABLE 35 GLOBAL ADHESIVE MARKET IN NONWOVEN FABRIC APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	77
ADHESIVES IN BOOKBINDING AND GRAPHIC ART INDUSTRY APPLICATIONS	77
TABLE 36 APPLICATIONS IN THE BOOKBINDING AND GRAPHIC ART INDUSTRY	78
Adhesives in Bookbinding and Graphic Art Applications Market	78
TABLE 37 GLOBAL ADHESIVE MARKET IN BOOKBINDING AND GRAPHIC ART APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	79
ADHESIVES IN PRESSURE-SENSITIVE ADHESIVE PRODUCTS	79
Natural Rubber Adhesives	79
Synthetic Rubber Adhesives	80
Acrylic Adhesives	80
Adhesives in Label Application	81
Adhesives in Pricing Labels	81
Adhesives in Decals and Signs	81
TABLE 38 PRESSURE-SENSITIVE ADHESIVE APPLICATIONS	82
Pressure-Sensitive Adhesive Market by Application	83
TABLE 39 GLOBAL PRESSURE-SENSITIVE ADHESIVE MARKET BY APPLICATION, THROUGH 2021 (\$ MILLIONS)	83
GLOBAL ADHESIVE MARKET IN PAPER, BOARD AND RELATED PRODUCT APPLICATIONS BY REGION	84
TABLE 40 GLOBAL ADHESIVE MARKET IN PAPER, BOARD AND RELATED PACKAGING PRODUCTS BY REGION, THROUGH 2021 (\$ MILLIONS)	84
FIGURE 20 GLOBAL ADHESIVE MARKET IN PAPER, BOARD AND RELATED PACKAGING PRODUCTS BY REGION, 2014-2021 (\$ MILLIONS)	84
ASIA-PACIFIC ADHESIVE MARKET IN PAPER, BOARD AND RELATED PRODUCTS BY COUNTRY	85
TABLE 41 ASIA-PACIFIC ADHESIVE MARKET IN PAPER, BOARD AND RELATED PACKAGING PRODUCTS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	85
EUROPEAN ADHESIVE MARKET IN PAPER, BOARD AND RELATED PRODUCTS BY COUNTRY	85
TABLE 42 EUROPEAN ADHESIVE MARKET IN PAPER, BOARD AND RELATED PACKAGING PRODUCTS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	85
NORTH AMERICAN ADHESIVE MARKET IN PAPER, BOARD AND RELATED PRODUCTS BY COUNTRY	86
TABLE 43 NORTH AMERICAN ADHESIVE MARKET IN PAPER, BOARD AND RELATED PACKAGING PRODUCTS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	86
REST OF THE WORLD ADHESIVE MARKET IN PAPER, BOARD AND RELATED PRODUCTS BY COUNTRY	86
TABLE 44 REST OF THE WORLD ADHESIVE MARKET IN PAPER, BOARD AND RELATED PACKAGING PRODUCTS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	87
ADHESIVES IN CIVIL ENGINEERING APPLICATIONS	87
ADHESIVE MARKET IN CIVIL ENGINEERING APPLICATIONS	87
TABLE 45 GLOBAL ADHESIVE MARKET IN CIVIL ENGINEERING APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	87
FIGURE 21 GLOBAL ADHESIVE MARKET IN CIVIL ENGINEERING APPLICATIONS, 2014-2021 (\$ MILLIONS)	88
Adhesives in On-Site Building Construction Applications	88
TABLE 46 ADHESIVES IN ON-SITE BUILDING CONSTRUCTION APPLICATIONS	89

TOPIC	PAGE NO.
Adhesives in Roofing Applications	91
Adhesives in Flooring Applications	91
Adhesives in Facades Applications	91
Adhesives in Ceiling Applications	92
Adhesives in Wall-Covering Applications	92
Adhesives in Laminate Applications	92
Adhesives in Structural Glazing Applications	92
Adhesives in Architectural Applications	92
Adhesives in Non-Structural Applications	93
Adhesive Market in On-site Building Construction Applications	93
TABLE 47 GLOBAL ADHESIVE MARKET IN ON-SITE BUILDING CONSTRUCTION APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	93
ADHESIVES IN INFRASTRUCTURE APPLICATIONS	93
Adhesives in Precast Concrete Bridges	94
Adhesives in Construction of Repairs to Bridges	94
Adhesives in Transportation Infrastructure Applications	94
Other Epoxy Adhesive Applications	95
Adhesives in Roadway Applications	95
Adhesives in Railway Track Maintenance Applications	95
Adhesive Market in Infrastructure Applications	95
TABLE 48 GLOBAL ADHESIVE MARKET IN INFRASTRUCTURE APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	96
ADHESIVES IN OFF-SITE CONSTRUCTION APPLICATIONS	96
Adhesives in Factory Assembled Building Part Applications	96
Adhesives in Prefabricated Housing Applications	96
Adhesives in Off-site Construction Applications Market	97
TABLE 49 GLOBAL ADHESIVE MARKET IN OFF-SITE CONSTRUCTION APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	97
ADHESIVES IN MISCELLANEOUS CIVIL ENGINEERING APPLICATIONS	97
Adhesive Market in Miscellaneous Civil Engineering Applications	97
TABLE 50 GLOBAL ADHESIVE MARKET IN MISCELLANEOUS CIVIL ENGINEERING APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	98
GLOBAL ADHESIVE MARKET IN CIVIL ENGINEERING APPLICATIONS BY REGION	98
TABLE 51 GLOBAL ADHESIVE MARKET IN CIVIL ENGINEERING APPLICATIONS BY REGION, THROUGH 2021 (\$ MILLIONS)	98
FIGURE 22 GLOBAL ADHESIVE MARKET IN CIVIL ENGINEERING APPLICATIONS BY REGION, 2014-2021 (\$ MILLIONS)	98
ASIA-PACIFIC ADHESIVE MARKET IN CIVIL ENGINEERING PPLICATIONS BY COUNTRY	99
TABLE 52 ASIA-PACIFIC ADHESIVE MARKET IN CIVIL ENGINEERING APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	99
EUROPEAN ADHESIVES IN CIVIL ENGINEERING APPLICATIONS MARKET BY COUNTRY	100
TABLE 53 EUROPEAN ADHESIVE MARKET IN CIVIL ENGINEERING APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	100
NORTH AMERICAN ADHESIVE MARKET IN CIVIL ENGINEERING APPLICATIONS BY COUNTRY	100
TABLE 54 NORTH AMERICAN ADHESIVE MARKET IN CIVIL ENGINEERING APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	100

TOPIC	PAGE NO.
REST OF THE WORLD ADHESIVES IN CIVIL ENGINEERING APPLICATIONS BY COUNTRY	101
TABLE 55 REST OF THE WORLD ADHESIVE MARKET IN CIVIL ENGINEERING APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	101
GLOBAL ADHESIVE MARKET IN WOODWORKING APPLICATIONS	101
PRIMARY WOODWORKING APPLICATIONS	101
SECONDARY WOODWORKING APPLICATIONS	102
ADHESIVE MARKET IN WOODWORKING APPLICATIONS	102
TABLE 56 GLOBAL ADHESIVE MARKET IN WOODWORKING APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	102
FIGURE 23 GLOBAL ADHESIVE MARKET IN WOODWORKING APPLICATIONS, 2014-2021 (\$ MILLIONS)	102
ADHESIVES USED IN WOODWORKING APPLICATIONS	103
Vinyl Adhesives	103
Vinyl Acetate/Ethylene Emulsions	103
Urea-Formaldehyde Glues and Binders	103
Melamine-Formaldehyde and Melamine-Urea-Formaldehyde Adhesives and Glues	103
Phenolic Formaldehyde Glues and Binders	103
Resorcinol-Formaldehyde Glues	104
Reactive Polyurethane Adhesives	104
Woodworking Hot Melts	104
Solvent-Based Poly-Chloroprene Adhesives	104
Emulsion Polymer Isocyanate	104
TABLE 57 ADHESIVES IN WOODWORKING APPLICATIONS	105
ADHESIVES IN PRIMARY WOODWORKING APPLICATIONS	107
Adhesives in Soft Plywood	107
Adhesives for Particle Boards	108
Adhesives for Medium-Density Fiber Boards	108
Adhesives for Oriented Strand Board	108
Adhesive Market in Primary Woodworking Applications	109
TABLE 58 GLOBAL ADHESIVE MARKET IN PRIMARY WOODWORKING APPLICATIONS MARKET, THROUGH 2021 (\$ MILLIONS)	109
ADHESIVES IN SECONDARY WOODWORKING APPLICATIONS	109
Adhesives in Furniture-Making Applications	109
Adhesives in Manufacture of Glulam	110
Adhesives in Manufacture of Doors	110
Adhesives in Manufacture of Windows	111
Adhesives in Manufacture of Sandwich Panels	112
Adhesives in Manufacture of Laminated Parquets	112
Adhesive Market in Secondary Woodworking Applications	112
TABLE 59 GLOBAL ADHESIVE MARKET IN SECONDARY WOODWORKING APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	112
GLOBAL ADHESIVE MARKET IN WOODWORKING APPLICATIONS BY REGION	113
TABLE 60 GLOBAL ADHESIVE MARKET IN WOODWORKING APPLICATIONS BY REGION, THROUGH 2021 (\$ MILLIONS)	113
FIGURE 24 GLOBAL ADHESIVE MARKET IN WOODWORKING APPLICATIONS BY REGION, 2014-2021 (\$ MILLIONS)	113

TOPIC	PAGE NO.
ASIA-PACIFIC ADHESIVE MARKET IN WOODWORKING APPLICATIONS BY COUNTRY	114
TABLE 61 ASIA-PACIFIC ADHESIVE MARKET IN WOODWORKING APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	114
EUROPEAN ADHESIVE MARKET IN WOODWORKING APPLICATIONS BY COUNTRY	114
TABLE 62 EUROPEAN ADHESIVE MARKET IN WOODWORKING APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	114
NORTH AMERICAN ADHESIVES IN WOODWORKING APPLICATIONS MARKET BY COUNTRY	115
TABLE 63 NORTH AMERICAN ADHESIVE MARKET IN WOODWORKING APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	115
REST OF THE WORLD ADHESIVE MARKET IN WOODWORKING APPLICATIONS BY COUNTRY	115
TABLE 64 REST OF THE WORLD ADHESIVE MARKET IN WOODWORKING APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	115
ADHESIVES IN ASSEMBLY APPLICATIONS	116
ADHESIVE MARKET IN ASSEMBLY APPLICATIONS	116
TABLE 65 GLOBAL ADHESIVE MARKET FOR ASSEMBLY APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	116
FIGURE 25 GLOBAL ADHESIVE MARKET FOR ASSEMBLY APPLICATIONS, 2014-2021 (\$ MILLIONS)	116
ADHESIVES IN ELECTRICAL AND ELECTRONIC INDUSTRY APPLICATIONS	117
TABLE 66 ADHESIVE APPLICATIONS IN THE ELECTRICAL AND ELECTRONIC INDUSTRIES	118
REQUIREMENTS FOR ADHESIVES USED IN THE ELECTRICAL AND ELECTRONIC INDUSTRIES	118
Electrical Insulation	119
Electrical Conductivity	119
Thermal Conductivity	119
Other Required Properties	119
ADHESIVES USED IN ELECTRICAL AND ELECTRONIC INDUSTRIES	120
TABLE 67 ADHESIVES COMMONLY USED IN THE ELECTRICAL/ELECTRONIC INDUSTRIES	120
ADHESIVES IN ELECTRONIC CIRCUIT APPLICATIONS	121
ADHESIVES IN FLEXIBLE PRINTED CIRCUIT APPLICATION	121
ADHESIVES USED FOR HEAT-SINK BONDING IN POLYCHLORINATED BIPHENYLS	121
ADHESIVES IN ELECTRIC MOTOR APPLICATION	122
ADHESIVE MARKET IN ELECTRICAL AND ELECTRONIC APPLICATIONS	122
TABLE 68 GLOBAL ADHESIVE MARKET IN ELECTRICAL AND ELECTRONIC APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	122
ADHESIVES IN HEATING, VENTILATING AND AIR CONDITIONING APPLICATIONS	122
ADHESIVES IN HEATING, VENTILATING AND AIR CONDITIONING APPLICATIONS	123
TABLE 69 ADHESIVES IN HEATING, VENTILATING AND AIR CONDITIONING APPLICATIONS	124
ADHESIVES IN THE FILTER INDUSTRY	125
ADHESIVES IN HEATING, VENTILATING AND AIR CONDITIONING APPLICATIONS	125

ТОРІС	PAGE NO.
TABLE 70 GLOBAL ADHESIVE MARKET IN HEATING, VENTILATING AND AIR CONDITIONING APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	126
ADHESIVES IN MEDICAL APPLICATIONS	126
TABLE 71 ADHESIVES IN MEDICAL APPLICATIONS	127
ADHESIVES IN DENTAL APPLICATIONS	127
ADHESIVES IN MEDICAL DEVICE ASSEMBLY APPLICATIONS	128
ADHESIVES IN ORTHOPEDIC APPLICATIONS	128
ADHESIVES IN TRANSDERMAL DRUG DELIVERY APPLICATIONS	129
ADHESIVES IN DISPOSABLE MEDICAL DEVICE APPLICATIONS	130
ADHESIVE TYPES IN MEDICAL DEVICE APPLICATIONS	130
TABLE 72 ADHESIVES IN MEDICAL DEVICE APPLICATIONS	130
ADHESIVES IN MEDICAL ELECTRONIC APPLICATIONS	131
ADHESIVES IN MISCELLANEOUS MEDICAL APPLICATIONS	131
ADHESIVES IN MISCELLANEOUS MEDICAL APPLICATIONS	132
TABLE 73 ADHESIVES IN MISCELLANEOUS MEDICAL APPLICATIONS	132
ADHESIVE MARKET IN MEDICAL APPLICATIONS	134
TABLE 74 GLOBAL ADHESIVE MARKET IN MEDICAL APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	134
ADHESIVES IN ALTERNATE ENERGY APPLICATIONS	134
ADHESIVES IN WIND TURBINES	134
ADHESIVES IN SOLAR ENERGY MODULES	135
ADHESIVES IN FUEL CELLS	135
ADHESIVE REQUIREMENTS IN ALTERNATE ENERGY APPLICATIONS	136
ADHESIVE MARKET IN ALTERNATE ENERGY APPLICATIONS	137
TABLE 75 GLOBAL ADHESIVE MARKET IN ALTERNATE ENERGY APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	137
ADHESIVES USED IN MISCELLANEOUS ASSEMBLY APPLICATIONS	137
ADHESIVES IN CELL PHONES	137
ADHESIVES IN TELECOMMUNICATION EQUIPMENT	138
ADHESIVES IN SPORTS FIELDS	138
Adhesives in Sportswear and Activewear	138
Adhesives in Sporting Goods and Leisure Equipment	138
Ski and Snowboard Bonding	138
Ice Hockey	139
ADHESIVE MARKET IN MISCELLANEOUS ASSEMBLY APPLICATIONS	139
TABLE 76 GLOBAL ADHESIVE MARKET IN MISCELLANEOUS ASSEMBLY APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	139
GLOBAL ADHESIVE MARKET IN ASSEMBLY APPLICATIONS BY REGION	139
TABLE 77 GLOBAL ADHESIVE MARKET IN ASSEMBLY APPLICATIONS BY REGION, THROUGH 2021 (\$ MILLIONS)	140
FIGURE 26 GLOBAL ADHESIVE MARKET IN ASSEMBLY APPLICATIONS REGION, 2014-2021 (\$ MILLIONS)	140
ASIA-PACIFIC ADHESIVE MARKET IN ASSEMBLY APPLICATIONS BY COUNTRY	140
TABLE 78 ASIA-PACIFIC ADHESIVE MARKET IN ASSEMBLY APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	141
EUROPEAN ADHESIVE MARKET IN ASSEMBLY APPLICATIONS BY COUNTRY	141
TABLE 79 EUROPEAN ADHESIVE MARKET IN ASSEMBLY APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	141

TOPIC	PAGE NO.
NORTH AMERICAN FOR ADHESIVE MARKET IN ASSEMBLY APPLICATIONS BY COUNTRY	142
TABLE 80 NORTH AMERICAN ADHESIVE MARKET IN ASSEMBLY APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	142
REST OF THE WORLD ADHESIVE MARKET IN ASSEMBLY APPLICATIONS BY COUNTRY	142
TABLE 81 REST OF THE WORLD ADHESIVE MARKET IN ASSEMBLY APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	142
ADHESIVES IN TRANSPORTATION APPLICATIONS	143
TABLE 82 ADHESIVES IN TRANSPORTATION APPLICATIONS	143
ADHESIVE MARKET IN TRANSPORTATION APPLICATIONS	145
TABLE 83 GLOBAL ADHESIVE MARKET IN TRANSPORTATION APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	146
FIGURE 27 GLOBAL ADHESIVE MARKET IN TRANSPORTATION APPLICATIONS, 2014-2021 (\$ MILLIONS)	146
ADHESIVES IN AUTOMOTIVE APPLICATIONS	146
ADHESIVES IN CAR BODYWORK CONSTRUCTION	147
ADHESIVES IN BONDING PANES OF GLASS INTO CAR BODYWORK	149
ADHESIVES IN ELECTRONIC PART BONDING	149
GLOBAL ADHESIVE MARKET IN AUTOMOBILE APPLICATIONS	149
TABLE 84 GLOBAL ADHESIVE MARKET IN AUTOMOBILE APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	150
ADHESIVES IN AIRCRAFT AND AEROSPACE APPLICATIONS	150
ADHESIVES IN AIRCRAFT	151
ADHESIVE MARKET IN AIRCRAFT AND AEROSPACE APPLICATIONS	152
TABLE 85 GLOBAL ADHESIVE MARKET IN AIRCRAFT AND AEROSPACE APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	152
ADHESIVES IN RAIL VEHICLE MANUFACTURE	152
ADHESIVES IN TRAIN MANUFACTURE	153
ADHESIVE MARKET IN RAIL VEHICLE APPLICATIONS	153
TABLE 86 GLOBAL ADHESIVE MARKET IN RAIL VEHICLE APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	153
ADHESIVES IN MARINE APPLICATIONS	154
ADHESIVE REQUIREMENTS IN THE SHIPBUILDING INDUSTRY	154
ADHESIVES IN STRUCTURAL SHIPBUILDING APPLICATIONS	155
ADHESIVES IN NON-STRUCTURAL SHIP-BUILDING APPLICATIONS	156
ADHESIVES IN SHIP-BUILDING REPAIR	156
ADHESIVES IN CARGO CONTAINERS	156
ADHESIVES IN YACHT BUILDING	156
GLOBAL ADHESIVE MARKET IN MARINE APPLICATIONS	157
TABLE 87 GLOBAL ADHESIVE MARKET IN MARINE APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	157
GLOBAL ADHESIVES IN OTHER TRANSPORTATION APPLICATIONS MARKET	157
GLOBAL ADHESIVE MARKET IN TRANSPORTATION APPLICATIONS BY REGION	157
TABLE 88 GLOBAL ADHESIVE MARKET IN TRANSPORTATION APPLICATIONS BY REGION, THROUGH 2021 (\$ MILLIONS)	157
FIGURE 28 GLOBAL ADHESIVE MARKET IN TRANSPORTATION APPLICATIONS BY REGION, 2014-2021 (\$ MILLIONS)	158
ASIA-PACIFIC ADHESIVE MARKET IN TRANSPORTATION APPLICATIONS BY COUNTRY	158

TOPIC	PAGE NO.
TABLE 89 ASIA-PACIFIC ADHESIVE MARKET IN TRANSPORTATION APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	158
EUROPEAN ADHESIVE MARKET IN TRANSPORTATION APPLICATIONS BY COUNTRY	159
TABLE 90 EUROPEAN ADHESIVE MARKET IN TRANSPORTATION APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	159
NORTH AMERICAN ADHESIVE MARKET IN TRANSPORTATION APPLICATIONS BY COUNTRY	159
TABLE 91 NORTH AMERICAN ADHESIVE MARKET IN TRANSPORTATION APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	160
REST OF THE WORLD ADHESIVE MARKET IN TRANSPORTATION APPLICATIONS BY COUNTRY	160
TABLE 92 REST OF THE WORLD ADHESIVE MARKET IN TRANSPORTATION APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	160
GLOBAL ADHESIVE MARKET IN MISCELLANEOUS APPLICATIONS	160
TABLE 93 ADHESIVES IN MISCELLANEOUS APPLICATIONS	161
ADHESIVE MARKET IN MISCELLANEOUS APPLICATIONS	163
TABLE 94 GLOBAL ADHESIVE MARKET IN MISCELLANEOUS APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	163
FIGURE 29 GLOBAL ADHESIVE MARKET IN MISCELLANEOUS APPLICATIONS, 2014-2021 (\$ MILLIONS)	163
ADHESIVES IN FOOTWEAR AND LEATHER GOODS APPLICATIONS	164
TABLE 95 ADHESIVES IN FOOTWEAR AND LEATHER GOODS APPLICATIONS	165
Adhesives in Footwear and Leather Goods Applications	165
TABLE 96 GLOBAL ADHESIVE MARKET IN FOOTWEAR AND LEATHER GOODS APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	165
ADHESIVES IN CONSUMER AND DO-IT-YOURSELF PRODUCT APPLICATIONS	166
Adhesives in Model Building	166
Adhesive Market in Consumer and Do-It-Yourself Applications	166
TABLE 97 GLOBAL ADHESIVE MARKET IN CONSUMER AND DO-IT-YOURSELF APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	166
ADHESIVES IN TIRE MANUFACTURING APPLICATIONS	167
Adhesives in Tire Labeling	167
Adhesive Market in Tire Manufacturing Applications	167
TABLE 98 GLOBAL ADHESIVE MARKET IN TIRE MANUFACTURING APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	168
ADHESIVES IN PIPE, WIRE AND CABLE MANUFACTURING APPLICATIONS	168
Adhesives in Polyvinyl chloride Pipe Applications	168
Adhesives in Pipe Joint Applications	168
Adhesives for Telecommunication and Power Cables	168
Adhesives in Flexible Flat Cables	169
Adhesive Market in Pipe, Wire and Cable Manufacturing Applications	169
TABLE 99 GLOBAL ADHESIVE MARKET IN PIPE, WIRE AND CABLE MANUFACTURING APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	169
ADHESIVES IN TEXTILE MANUFACTURING APPLICATIONS	169
Adhesives in Lingerie and Other Clothing Applications	170
Adhesives in Flame-Retardant Fabrics	170
Adhesive Market in Textile Manufacturing Applications	170
TABLE 100 GLOBAL ADHESIVE MARKET IN TEXTILE MANUFACTURING APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	171

TOPIC	PAGE NO.
ADHESIVES USED IN OTHER MISCELLANEOUS APPLICATIONS	171
TABLE 101 ADHESIVES IN OTHER MISCELLANEOUS APPLICATIONS	171
Adhesives for Mattress Applications	172
Adhesives for Lighting and Fixtures Applications	172
Adhesives in Extrusion Applications	172
Adhesives for Office and Data-Processing Applications	172
Adhesives in Digital Versatile Disk Manufacturing	173
Adhesives Used in Passports, Travel Documents and Tickets	173
Adhesives in Electro-Optic Applications	173
Adhesives in Transit Advertising	174
Adhesives in Manufacturing Membrane Switches	175
Adhesive Market in Other Miscellaneous Applications	175
TABLE 102 GLOBAL ADHESIVE MARKET IN OTHER MISCELLANEOUS APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	175
GLOBAL ADHESIVE MARKET IN MISCELLANEOUS APPLICATIONS BY REGION	175
TABLE 103 GLOBAL ADHESIVE MARKET IN MISCELLANEOUS APPLICATIONS BY REGION, THROUGH 2021 (\$ MILLIONS)	176
FIGURE 30 GLOBAL ADHESIVE MARKET IN MISCELLANEOUS APPLICATIONS BY REGION, 2014-2021 (\$ MILLIONS)	176
ASIA-PACIFIC ADHESIVES IN MISCELLANEOUS APPLICATIONS MARKET BY COUNTRY	176
TABLE 104 ASIA-PACIFIC ADHESIVE MARKET IN MISCELLANEOUS APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	177
EUROPEAN ADHESIVE MARKET IN MISCELLANEOUS APPLICATIONS BY COUNTRY	177
TABLE 105 EUROPEAN ADHESIVE MARKET IN MISCELLANEOUS APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	177
NORTH AMERICAN ADHESIVE MARKET IN MISCELLANEOUS APPLICATIONS BY COUNTRY	178
TABLE 106 NORTH AMERICAN ADHESIVE MARKET IN MISCELLANEOUS APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	178
REST OF THE WORLD ADHESIVES IN MISCELLANEOUS APPLICATIONS MARKET BY COUNTRY	178
TABLE 107 REST OF THE WORLD ADHESIVE MARKET IN MISCELLANEOUS APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	178
CHAPTER 6 TECHNOLOGY	180
OVERVIEW	180
ADHESIVE BENEFITS	180
REASONS FOR USING ADHESIVES	181
Improved Product Durability and Reliability	181
Increased Product Performance	181
Increased Design Flexibility	182
Increased Product Quality	182
Enhanced Product Aesthetics	182
Improved Process Productivity and Reduced Manufacturing Costs	182
ADHESIVE LIMITATIONS	183
ADHESIVE TECHNOLOGY	183
ADHESIVE BONDING	184
Adhesive Bonding Advantages	184

TOPIC	PAGE NO.
Adhesive Bonding Disadvantages	184
Adhesive Bonding Design Advantages	184
Adhesive Bonding Design Disadvantages	185
Adhesive Bonding Production Advantages	185
Adhesive Bonding Production Disadvantages	186
Adhesive Bonding Applications	187
FASTENING AND JOINING METHODS	187
Thermal Joining	187
Advantages of Adhesives Over Thermal Joining	187
Advantages of Adhesives over Mechanical Fasteners	188
Metal Fasteners	189
Shrink and Press Fitting	189
ADHESIVES FOR REPLACING FASTENERS	190
Structural Adhesives	190
Machinery Adhesives	190
ADHESIVES FOR CRITICAL APPLICATIONS	191
Adhesives in Space Industry Applications	191
Adhesives as an Alternative to Soldering in Printed Circuit Board Assembly	191
Adhesives as an Alternative to Welding in Automobiles	191
Adhesives for Glass Bonding in Automobiles	192
Adhesive Tapes Replacing Mechanical Fasteners	192
REPLACING TRADITIONAL JOINING METHODS	192
Adhesives for Bonding Metals	193
Adhesive Bonding of Aluminum	193
Adhesive Bonding of Stainless Steel	193
Adhesives for Galvanized Metal	193
Adhesive Bonding for Coated Steel	193
Adhesives for Thermoplastic Bonding	194
Adhesives for Composite Bonding	194
Adhesives for Coaxial Joints and Screw Threads	194
ADHESIVES USED FOR DIFFERENT MATERIALS	195
TABLE 108 ADHESIVES FOR VARIOUS MATERIALS	195
ADHESIVES VERSUS OTHER FASTENING METHODS	195
TABLE 109 JOINING CHARACTERISTIC COMPARISONS	195
COMPARISON OF JOINING METHODS	197
TABLE 110 COMPARISON OF JOINING METHODS	197
RHEOLOGY OF ADHESIVE FORMULATIONS	198
RHEOLOGICAL ADDITIVES	198
THIXOTROPY OF ADHESIVE FORMULATIONS	198
ADHESIVE SELECTION	199
ADHESIVE CHARACTERISTICS	199
Ероху	199
Urethane	199
Acrylic	200
Cyanoacrylate	200
Silicone	200
Polyvinyl Acetate	200

TOPIC	PAGE NO.
Formaldehydes	201
ADHESIVE CLASSIFICATION	201
CLASSIFICATION BY TECHNOLOGY	201
Physically Hardening Adhesives	201
Chemically Curing Adhesives	202
Pressure-Sensitive Adhesives	202
ADHESIVE CLASSIFICATION BY STRUCTURE	203
Thermosetting Adhesives	203
Thermoplastic Adhesives	203
Elastomeric Adhesives	203
TABLE 111 ADHESIVE CHARACTERISTICS BY STRUCTURE	204
ADHESIVE CLASSIFICATION BY CURING PROCESS	205
One-Part Moisture-Cure Room-Temperature Vulcanization Adhesives	205
Two-Part Room-Temperature Condensation Cure	206
Heat-Curing Adhesives	206
TABLE 112 COMPARISON OF ADHESIVES CLASSIFIED BY CURING PROCESS	207
ADHESIVE CLASSIFICATION BY ORIGIN	207
Synthetic Adhesives	207
Natural Adhesives	208
TABLE 113 NATURAL ADHESIVE CHARACTERISTICS	208
CLASSIFICATION BY BONDING MECHANISM	208
ADHESIVE CLASSIFICATION BY PRODUCT CATEGORIES	209
TABLE 114 ADHESIVE CLASSIFICATION BY PRODUCT CATEGORY	209
EMERGING TECHNOLOGIES IN ADHESIVES	210
NANO-ENGINEERED ADHESIVES	211
NEW ADHESIVE TYPES	211
ADDITIVES FOR ADHESIVES	211
RAW MATERIALS FOR ADHESIVES	212
PATENT SIGNIFICANCE	215
PATENT ANALYSIS IMPORTANCE	215
ANALYSIS OF SAMPLE U.S. PATENTS	216
PATENT ANALYSIS BASED ON COUNTRY OF ORIGIN	216
TABLE 115 U.S. PATENTS RELATED TO ADHESIVES BASED ON COUNTRY OF ORIGIN, 2013-APRIL 2015	216
PATENT ANALYSIS BASED ON YEAR ISSUED	217
TABLE 116 U.S. PATENTS RELATED TO ADHESIVES BASED ON YEAR ISSUED, 2013-APRIL 2015	217
PATENT ANALYSIS BASED ON TECHNOLOGY	217
TABLE 117 U.S. PATENTS RELATED TO ADHESIVES BASED ON TECHNOLOGY, 2013-APRIL 2015	217
PATENT ANALYSIS BASED ON PATENTS ISSUED TO COMPANIES	218
TABLE 118 U.S. PATENTS RELATED TO ADHESIVES BASED ON COMPANY DEVELOPING THE PATENT, 2013-APRIL 2015	218
STANDARDS	218
AMERICAN SOCIETY FOR TESTING AND MATERIALS STANDARDS FOR ADHESIVES	218
TABLE 119 AMERICAN SOCIETY FOR TESTING AND MATERIAL ADHESIVE STANDARDS	219

TOPIC	PAGE NO.
CHAPTER 7 INDUSTRY STRUCTURE AND COMPETITIVE ANALYSIS	223
OVERVIEW	223
ADHESIVE MARKET TREND	223
ADHESIVE INDUSTRY REQUIREMENTS	224
DRIVING FORCES IN THE ADHESIVE MARKET	225
MARKET GLOBALIZATION	226
NEW TRADING BLOCS	226
ENVIRONMENTAL RESPONSIBILITY	227
INDUSTRIAL CONSOLIDATION	227
TECHNOLOGICAL EVOLUTION	227
RAW MATERIAL AVAILABILITY	227
INFLUENCE OF SECONDARY MARKET FORCES	228
OTHER FACTORS	228
COMPETITION WITHIN THE ADHESIVES INDUSTRY	229
MERGERS AND ACQUISITIONS	230
TABLE 120 MAJOR MERGERS AND ACQUISITIONS IN THE ADHESIVE INDUSTRY, JANUARY 2012-MAY 2015	230
MANUFACTURERS OF ADHESIVES, ADHESIVE-APPLYING EQUIPMENT AND RAW MATERIALS FOR ADHESIVES	235
CHAPTER 8 COMPANY PROFILES	237
3M CO.	237
ACCUMETRIC LLC	238
ADCHEM CORP.	239
ADHESIVE FILMS INC.	239
ADHESIVE PACKAGING SPECIALTIES LLC	240
ADHESIVE PACKAGING SPECIALITIES ELECTRONICAL ADHESIVES RESEARCH INC.	240
ADHEZION BIOMEDICAL LLC	240
AMERICAN BILTRITE INC.	241
ASHLAND INC.	242
AVERY DENNISON CORP.	242
BEARDOW & ADAMS (ADHESIVES) LTD.	244
BOSTIK S.A.	245
CHEMENCE LTD.	240
COVALENCE SPECIALTY ADHESIVES LLC	248
DOW CORNING CORP.	248
DYNEA OY	249
ELMER'S PRODUCTS INC.	250
EMS-CHEMIE HOLDING AG	250
EVANS ADHESIVE CORP. LTD.	250
FORBO INTL. S.A.	251
	251
FOSHAN MAYDOS CHEMICAL CO. LTD. FRANKLIN INTL. INC.	252
GARDNER-GIBSON	252
GLENMAR TECHNOLOGY	253
GLUE DOTS INTERNATIONAL	254 255
GRACO INC. H.B. FULLER CO.	255
H.D. FULLER CO.	250

TOPIC	PAGE NO.
HENKEL KGAA	256
HERNON MANUFACTURING INC.	257
HEXION SPECIALTY CHEMICALS INC.	257
HINDUSTAN ADHESIVES LTD.	258
HUNTSMAN CORP.	259
ILLINOIS TOOL WORKS INC.	260
ITW DYNATEC	262
ITW CHEMIN INDIA LTD.	263
ITW PERFORMANCE POLYMERS & FLUIDS, CHINA	263
JOWAT CORP.	264
LORD CORP.	264
MACTAC	265
MAPEI SPA	265
MASTER BOND INC.	266
MOMENTIVE PERFORMANCE MATERIALS INC.	268
NANHAI NANGUANG CHEMICAL & PACKAGE CO. LTD.	268
NATIONAL STARCH & CHEMICAL CO.	269
NINGHAI DINGCHENG ADHESIVE CO. LTD.	269
NORDSON CORP.	270
PIDILITE INDUSTRIES LTD.	271
POLYMERIC SYSTEMS INC.	271
POWER ADHESIVES LTD.	272
QUILOSA INDUSTRIAS QUÍMICAS LÖWENBERG S.L.	272
ROHM AND HAAS CO	272
ROYAL ADHESIVES & SEALANTS LLC	273
RPM INTL. INC.	274
SCA SCHUCKER GMBH & CO. KG	275
SHURTAPE TECHNOLOGIES LLC	275
SIKA AG	276
SPECIALTY ADHESIVE FILM CO. INC.	276
SUPER GLUE CORP.	277
TECHADHESION SYSTEMS LTD.	278
TESA AG	278
THREEBOND INTL. INC.	279
TOTAL S.A.	279
UNISEAL INC.	280
VAGNONE & BOERI S.R.L	280
VALCO MELTON	281
WACKER-CHEMIE AG	281
WISDOM ADHESIVES CO.	283
WUXI WANLI ADHESION MATERIAL CO. LTD.	284
YIWU CITY HENGTUO ADHESIVE ARTICLES CO. LTD.	284
YUYAO MUNICIPAL KEXING ADHESIVE CO. LTD.	284
IAPTER 9 APPENDIX	287
TABLE 121 NORTH AMERICAN MANUFACTURERS	287
ABLE 122 EUROPEAN ADHESIVE MANUFACTURERS	305

TOPIC	PAGE NO.
TABLE 123 ASIA-PACIFIC ADHESIVE MANUFACTURERS	312
TABLE 124 REST OF THE WORLD ADHESIVE MANUFACTURER	318
TABLE 125 ADHESIVE-APPLYING EQUIPMENT MANUFACTURERS	319
TABLE 126 RAW MATERIALS FOR ADHESIVE MANUFACTURERS	327
TABLE 127 U.S. PATENTS RELATED TO ADHESIVES	333
TABLE 128 NEW ADHESIVE TYPES	347

LIST OF TABLES

SUMMARY TABLE GLOBAL ADHESIVE AND ADHESIVE-APPLYING EQUIPMENT MARKET. THROUGH 2021 (\$ MILLIONS) 26 178BLE 1 GLOBAL ADHESIVE MARKET BASED ON CURING TECHNOLOGIES, THROUGH 2021 (\$ MILLIONS) 28 178BLE 2 GLOBAL ADHESIVE MARKET BASED ON CHEMISTRY, THROUGH 2021 (\$ MILLIONS) 29 178BLE 3 GLOBAL ADHESIVE MARKET BASED ON CHEMISTRY, THROUGH 2021 (\$ MILLIONS) 30 178BLE 3 GLOBAL ADHESIVE MARKET BY REGION, THROUGH 2021 (\$ MILLIONS) 31 178BLE 5 EUROPEAN ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) 31 178BLE 5 EUROPEAN ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) 31 178BLE 7 REST OF THE WORLD ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) 32 178BLE 8 GLOBAL HOT-MELT ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 33 178BLE 9 GLOBAL HOT-MELT ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 34 178BLE 9 GLOBAL ACRYLIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 35 178BLE 11 GLOBAL PRESSURE-SENSITIVE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 36 178BLE 11 GLOBAL PEDAYY ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 37 178BLE 13 GLOBAL PEDAYY ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 38 MILLIONS) 39 178BLE 14 GLOBAL REACTIVE POLYURETHANE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 30 178BLE 15 GLOBAL POLYVINYL ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 31 178BLE 16 GLOBAL ANAEROBIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 40 MILLIONS) 41 178BLE 16 GLOBAL ADHESIVE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 42 MILLIONS) 44 MILLIONS) 45 178BLE 16 GLOBAL ADHESIVE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 46 MILLIONS) 47 178BLE 18 GLOBAL ADHESIVE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 48 178BLE 19 GLOBAL ADHESIVE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 48 178BLE 19 GLOBAL ADHESIVE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 49 178BLE 19 GLOBAL ADHESIVE ADHESIVE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 40 178BLE 21 GLOBAL ADHESIVE ADHESIVE ADHIBMENT MARKET BY TYPE, THROUGH	TABLE HEADING	PAGE NO.
TABLE 1 GLOBAL ADHESIVE MARKET BASED ON CURING TECHNOLOGIES, THROUGH 2021 (\$ MILLIONS) 28 MILLIONS) 28 MILLIONS 128 MILLIONS 129 TABLE 2 GLOBAL ADHESIVE MARKET BASED ON CHEMISTRY, THROUGH 2021 (\$ MILLIONS) 129 TABLE 3 GLOBAL ADHESIVE MARKETS BY REGION, THROUGH 2021 (\$ MILLIONS) 130 MILLIONS 131 TABLE 4 ASIA-PACIFIC ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) 132 MILLIONS 133 TABLE 5 EUROPEAN ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) 134 TABLE 6 NORTH AMERICAN ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) 135 TABLE 7 REST OF THE WORLD ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) 136 TABLE 8 GLOBAL HOT-MELT ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 139 TABLE 9 GLOBAL ACRYLIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 130 TABLE 9 GLOBAL PRESSURE-SENSITIVE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 131 TABLE 10 GLOBAL PRESSURE-SENSITIVE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 132 TABLE 12 GLOBAL POLYVINYL ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 134 TABLE 13 GLOBAL POLYVINYL ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 136 TABLE 14 GLOBAL CYANOACRYLIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 137 TABLE 15 GLOBAL ANAEROBIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 138 MILLIONS) 140 MILLIONS) 141 TABLE 16 GLOBAL ADHESIVE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 142 MILLIONS) 143 MILLIONS) 144 TABLE 16 GLOBAL ADHESIVE UNLOADING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 144 TABLE 17 GLOBAL ADHESIVE UNLOADING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 158 MILLIONS) 159 TABLE 19 GLOBAL ADHESIVE EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 150 TABLE 19 GLOBAL ADHESIVE BOUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 150 TABLE 20 GLOBAL ADHESIVE EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 150 TABLE 21 TABLE 21 GLOBAL ADHESIVE APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) 150 TABLE 22 GLOBAL ADHESIVE-APPLYING EQUIPMENT MA	SUMMARY TABLE GLOBAL ADHESIVE AND ADHESIVE-APPLYING EQUIPMENT MARKET,	
TABLE 2 GLOBAL ADHESIVE MARKET BASED ON CHEMISTRY, THROUGH 2021 (\$ MILLIONS) 29 TABLE 3 GLOBAL ADHESIVE MARKETS BY REGION, THROUGH 2021 (\$ MILLIONS) 30 TABLE 4 ASIA-PACIFIC ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) 31 TABLE 5 EUROPEAN ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) 32 TABLE 6 NORTH AMERICAN ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) 33 TABLE 7 REST OF THE WORLD ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) 34 TABLE 8 GLOBAL HOT-MELT ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 35 TABLE 9 GLOBAL ACRYLIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 36 TABLE 10 GLOBAL PRESSURE-SENSITIVE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 37 TABLE 11 GLOBAL EPOXY ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 38 TABLE 12 GLOBAL REACTIVE POLYURETHANE ADHESIVE MARKET BY TYPE, 37 THROUGH 2021 (\$ MILLIONS) 38 TABLE 13 GLOBAL POLYVINYL ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 14 GLOBAL CYANOACRYLIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 15 GLOBAL ANAEROBIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 16 GLOBAL MISCELLANEOUS ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 16 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 17 GLOBAL ADHESIVE UNLOADING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 19 GLOBAL ADHESIVE UNLOADING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 19 GLOBAL ADHESIVE UNLOADING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 12 GLOBAL ADHESIVE AUXILIARY EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 22 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 23 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 24 EUROPEAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 24 EUROPEAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	TABLE 1 GLOBAL ADHESIVE MARKET BASED ON CURING TECHNOLOGIES, THROUGH	26
TABLE 3 GLOBAL ADHESIVE MARKETS BY REGION, THROUGH 2021 (\$ MILLIONS) TABLE 4 ASIA-PACIFIC ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ 30 MILLIONS) TABLE 5 EUROPEAN ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) 31 TABLE 6 NORTH AMERICAN ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ 31 MILLIONS) TABLE 7 REST OF THE WORLD ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ 31 MILLIONS) TABLE 8 GLOBAL HOT-MELT ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 9 GLOBAL ACRYLIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 10 GLOBAL PRESSURE-SENSITIVE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 11 GLOBAL PRESSURE-SENSITIVE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 12 GLOBAL REACTIVE POLYURETHANE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 13 GLOBAL POLYVINYL ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 14 GLOBAL POLYVINYL ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 15 GLOBAL ANAEROBIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 16 GLOBAL ANAEROBIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 16 GLOBAL ADHESIVE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 17 GLOBAL ADHESIVE UNLOADING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 18 GLOBAL ADHESIVE UNLOADING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 19 GLOBAL ADHESIVE DISPENSING SYSTEMS MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 20 GLOBAL ADHESIVE EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 21 GLOBAL ADHESIVE BURDADING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 21 GLOBAL ADHESIVE EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 21 GLOBAL ADHESIVE EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 21 GLOBAL ADHESIVE APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 22 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 24 EUROPEAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLION	TABLE 2 GLOBAL ADHESIVE MARKET BASED ON CHEMISTRY, THROUGH 2021 (\$	28
TABLE 4 ASIA-PACIFIC ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) 31 TABLE 5 EUROPEAN ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) 32 MILLIONS) 33 TABLE 6 NORTH AMERICAN ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) 34 TABLE 7 REST OF THE WORLD ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) 35 TABLE 8 GLOBAL HOT-MELT ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 36 TABLE 9 GLOBAL ACRYLIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 37 TABLE 10 GLOBAL PRESSURE-SENSITIVE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 38 TABLE 11 GLOBAL PROXY ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 39 TABLE 12 GLOBAL REACTIVE POLYURETHANE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 30 TABLE 13 GLOBAL POLYVINYL ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 31 TABLE 14 GLOBAL CYANOACRYLIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 32 TABLE 14 GLOBAL ANAEROBIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 33 TABLE 16 GLOBAL MISCELLANEOUS ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 44 TABLE 17 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 45 TABLE 18 GLOBAL ADHESIVE UNLOADING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 46 TABLE 19 GLOBAL ADHESIVE DISPENSING SYSTEMS MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 47 TABLE 12 GLOBAL ADHESIVE AUXILIARY EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 48 TABLE 21 GLOBAL ADHESIVE AUXILIARY EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 48 TABLE 22 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY REGION, THROUGH 2021 (\$ MILLIONS) 48 TABLE 22 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) 49 TABLE 22 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) 49 TABLE 22 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) 40 TABLE 22 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	·	29
TABLE 5 EUROPEAN ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 6 NORTH AMERICAN ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 7 REST OF THE WORLD ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 8 GLOBAL HOT-MELT ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 9 GLOBAL ACRYLIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 10 GLOBAL PRESSURE-SENSITIVE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 11 GLOBAL EPOXY ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 12 GLOBAL REACTIVE POLYURETHANE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 13 GLOBAL POLYVINYL ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 14 GLOBAL CYANOACRYLIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 15 GLOBAL ANAEROBIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 16 GLOBAL MISCELLANEOUS ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 17 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 18 GLOBAL ADHESIVE UNLOADING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 19 GLOBAL ADHESIVE DISPENSING SYSTEMS MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 19 GLOBAL ADHESIVE DISPENSING SYSTEMS MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 20 GLOBAL ADHESIVE DISPENSING SYSTEMS MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 21 GLOBAL ADHESIVE DISPENSING SYSTEMS MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 21 TABLE 21 GLOBAL ADHESIVE AUXILIARY EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 22 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 23 ASIA-PACIFIC ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 24 EUROPEAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 25 NORTH AMERICAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	TABLE 4 ASIA-PACIFIC ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$	
TABLE 6 NORTH AMERICAN ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) 32 MILLIONS) TABLE 7 REST OF THE WORLD ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 8 GLOBAL HOT-MELT ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 33 MILLIONS) TABLE 9 GLOBAL ACRYLIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 34 MILLIONS) TABLE 10 GLOBAL PRESSURE-SENSITIVE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 35 MILLIONS) TABLE 11 GLOBAL EPOXY ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 36 MILLIONS) TABLE 12 GLOBAL REACTIVE POLYURETHANE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 13 GLOBAL POLYVINYL ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 14 GLOBAL CYANOACRYLIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 15 GLOBAL ANAEROBIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 16 GLOBAL MISCELLANEOUS ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 17 GLOBAL ADHESIVE APPLYING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 18 GLOBAL ADHESIVE UNLOADING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 19 GLOBAL ADHESIVE UNLOADING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 19 GLOBAL ADHESIVE DISPENSING SYSTEMS MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 19 GLOBAL ADHESIVE AUVILIARY EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 21 TABLE 21 GLOBAL ADHESIVE AUVILIARY EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 22 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 23 ASIA-PACIFIC ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 24 EUROPAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 25 NORTH AMERICAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS)		31
MILLIONS) TABLE 8 GLOBAL HOT-MELT ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 9 GLOBAL ACRYLIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 34 TABLE 10 GLOBAL PRESSURE-SENSITIVE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 35 TABLE 11 GLOBAL EPOXY ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 36 TABLE 12 GLOBAL REACTIVE POLYURETHANE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 37 TABLE 13 GLOBAL POLYVINYL ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 14 GLOBAL CYANOACRYLIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 15 GLOBAL ANAEROBIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 16 GLOBAL MISCELLANEOUS ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 17 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 18 GLOBAL ADHESIVE UNLOADING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 19 GLOBAL ADHESIVE DISPENSING SYSTEMS MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 20 GLOBAL ADHESIVE DISPENSING SYSTEMS MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 21 TABLE 21 GLOBAL ADHESIVE AUXILIARY EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 22 GLOBAL ADHESIVE EQUIPMENT MARKET BY APPLICATION PROCESS, THROUGH 2021 (\$ MILLIONS) TABLE 22 GLOBAL ADHESIVE AUXILIARY EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 22 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY REGION, THROUGH 2021 (\$ MILLIONS) TABLE 23 ASIA-PACIFIC ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 24 EUROPEAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 25 NORTH AMERICAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	TABLE 6 NORTH AMERICAN ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	31
MILLIONS) TABLE 9 GLOBAL ACRYLIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 34 TABLE 10 GLOBAL PRESSURE-SENSITIVE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 35 TABLE 11 GLOBAL EPOXY ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 36 TABLE 12 GLOBAL REACTIVE POLYURETHANE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 13 GLOBAL POLYVINYL ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 14 GLOBAL CYANOACRYLIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 15 GLOBAL ANAEROBIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 16 GLOBAL MISCELLANEOUS ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 17 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 18 GLOBAL ADHESIVE UNLOADING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 19 GLOBAL ADHESIVE DISPENSING SYSTEMS MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 20 GLOBAL ADHESIVE EQUIPMENT MARKET BY APPLICATION PROCESS, THROUGH 2021 (\$ MILLIONS) TABLE 21 TABLE 21 GLOBAL ADHESIVE AUXILIARY EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 22 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY REGION, THROUGH 2021 (\$ MILLIONS) TABLE 23 ASIA-PACIFIC ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 24 EUROPEAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 25 LORDHA ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 24 EUROPEAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 25 NORTH AMERICAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	TABLE 7 REST OF THE WORLD ADHESIVE MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	32
TABLE 10 GLOBAL PRESSURE-SENSITIVE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 11 GLOBAL EPOXY ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 36 TABLE 12 GLOBAL REACTIVE POLYURETHANE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 13 GLOBAL POLYVINYL ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 14 GLOBAL CYANOACRYLIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 15 GLOBAL ANAEROBIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 16 GLOBAL MISCELLANEOUS ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 17 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 18 GLOBAL ADHESIVE UNLOADING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 19 GLOBAL ADHESIVE DISPENSING SYSTEMS MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 19 GLOBAL ADHESIVE DISPENSING SYSTEMS MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 20 GLOBAL ADHESIVE EQUIPMENT MARKET BY APPLICATION PROCESS, THROUGH 2021 (\$ MILLIONS) TABLE 21 TABLE 21 GLOBAL ADHESIVE AUXILIARY EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 22 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY REGION, THROUGH 2021 (\$ MILLIONS) TABLE 23 ASIA-PACIFIC ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 24 EUROPEAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 25 NORTH AMERICAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	TABLE 8 GLOBAL HOT-MELT ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS)	33
2021 (\$ MILLIONS) TABLE 11 GLOBAL EPOXY ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 36 TABLE 12 GLOBAL REACTIVE POLYURETHANE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) 37 TABLE 13 GLOBAL POLYVINYL ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 14 GLOBAL CYANOACRYLIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 15 GLOBAL ANAEROBIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 16 GLOBAL MISCELLANEOUS ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 17 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 18 GLOBAL ADHESIVE UNLOADING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 19 GLOBAL ADHESIVE DISPENSING SYSTEMS MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 20 GLOBAL ADHESIVE EQUIPMENT MARKET BY APPLICATION PROCESS, THROUGH 2021 (\$ MILLIONS) TABLE 21 TABLE 21 GLOBAL ADHESIVE AUXILIARY EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 22 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY REGION, THROUGH 2021 (\$ MILLIONS) TABLE 23 ASIA-PACIFIC ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 24 EUROPEAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 25 NORTH AMERICAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	TABLE 9 GLOBAL ACRYLIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS)	34
TABLE 12 GLOBAL REACTIVE POLYURETHANE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 13 GLOBAL POLYVINYL ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 14 GLOBAL CYANOACRYLIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 15 GLOBAL ANAEROBIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 16 GLOBAL MISCELLANEOUS ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 17 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 18 GLOBAL ADHESIVE UNLOADING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 19 GLOBAL ADHESIVE DISPENSING SYSTEMS MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 20 GLOBAL ADHESIVE EQUIPMENT MARKET BY APPLICATION PROCESS, THROUGH 2021 (\$ MILLIONS) TABLE 21 TABLE 21 GLOBAL ADHESIVE AUXILIARY EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 22 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY REGION, THROUGH 2021 (\$ MILLIONS) TABLE 23 ASIA-PACIFIC ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 24 EUROPEAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 25 NORTH AMERICAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	TABLE 10 GLOBAL PRESSURE-SENSITIVE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS)	35
THROUGH 2021 (\$ MILLIONS) TABLE 13 GLOBAL POLYVINYL ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 14 GLOBAL CYANOACRYLIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 15 GLOBAL ANAEROBIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 16 GLOBAL MISCELLANEOUS ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 17 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 18 GLOBAL ADHESIVE UNLOADING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 19 GLOBAL ADHESIVE DISPENSING SYSTEMS MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 20 GLOBAL ADHESIVE EQUIPMENT MARKET BY APPLICATION PROCESS, THROUGH 2021 (\$ MILLIONS) TABLE 21 TABLE 21 GLOBAL ADHESIVE AUXILIARY EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 22 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY REGION, THROUGH 2021 (\$ MILLIONS) TABLE 23 ASIA-PACIFIC ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 24 EUROPEAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 25 NORTH AMERICAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	TABLE 11 GLOBAL EPOXY ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS)	36
MILLIONS) TABLE 14 GLOBAL CYANOACRYLIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 15 GLOBAL ANAEROBIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 16 GLOBAL MISCELLANEOUS ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 17 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 18 GLOBAL ADHESIVE UNLOADING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 19 GLOBAL ADHESIVE DISPENSING SYSTEMS MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 20 GLOBAL ADHESIVE EQUIPMENT MARKET BY APPLICATION PROCESS, THROUGH 2021 (\$ MILLIONS) TABLE 21 TABLE 21 GLOBAL ADHESIVE AUXILIARY EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 22 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY REGION, THROUGH 2021 (\$ MILLIONS) TABLE 23 ASIA-PACIFIC ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 24 EUROPEAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 25 NORTH AMERICAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	TABLE 12 GLOBAL REACTIVE POLYURETHANE ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS)	37
MILLIONS) TABLE 15 GLOBAL ANAEROBIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 16 GLOBAL MISCELLANEOUS ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 17 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 18 GLOBAL ADHESIVE UNLOADING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 19 GLOBAL ADHESIVE DISPENSING SYSTEMS MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 20 GLOBAL ADHESIVE EQUIPMENT MARKET BY APPLICATION PROCESS, THROUGH 2021 (\$ MILLIONS) TABLE 21 TABLE 21 GLOBAL ADHESIVE AUXILIARY EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 22 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY REGION, THROUGH 2021 (\$ MILLIONS) TABLE 23 ASIA-PACIFIC ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 24 EUROPEAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 24 EUROPEAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 25 NORTH AMERICAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, 60	TABLE 13 GLOBAL POLYVINYL ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS)	38
MILLIONS) TABLE 16 GLOBAL MISCELLANEOUS ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 17 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 18 GLOBAL ADHESIVE UNLOADING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 19 GLOBAL ADHESIVE DISPENSING SYSTEMS MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 20 GLOBAL ADHESIVE EQUIPMENT MARKET BY APPLICATION PROCESS, THROUGH 2021 (\$ MILLIONS) TABLE 21 TABLE 21 GLOBAL ADHESIVE AUXILIARY EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 22 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY REGION, THROUGH 2021 (\$ MILLIONS) TABLE 23 ASIA-PACIFIC ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 24 EUROPEAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 25 NORTH AMERICAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	TABLE 14 GLOBAL CYANOACRYLIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS)	40
MILLIONS) TABLE 17 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 18 GLOBAL ADHESIVE UNLOADING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 19 GLOBAL ADHESIVE DISPENSING SYSTEMS MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 20 GLOBAL ADHESIVE EQUIPMENT MARKET BY APPLICATION PROCESS, THROUGH 2021 (\$ MILLIONS) TABLE 21 TABLE 21 GLOBAL ADHESIVE AUXILIARY EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 22 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY REGION, THROUGH 2021 (\$ MILLIONS) TABLE 23 ASIA-PACIFIC ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 24 EUROPEAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 25 NORTH AMERICAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	TABLE 15 GLOBAL ANAEROBIC ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS)	41
2021 (\$ MILLIONS) TABLE 18 GLOBAL ADHESIVE UNLOADING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 19 GLOBAL ADHESIVE DISPENSING SYSTEMS MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 20 GLOBAL ADHESIVE EQUIPMENT MARKET BY APPLICATION PROCESS, THROUGH 2021 (\$ MILLIONS) TABLE 21 TABLE 21 GLOBAL ADHESIVE AUXILIARY EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 22 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY REGION, THROUGH 2021 (\$ MILLIONS) TABLE 23 ASIA-PACIFIC ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 24 EUROPEAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 25 NORTH AMERICAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	TABLE 16 GLOBAL MISCELLANEOUS ADHESIVE MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS)	42
2021 (\$ MILLIONS) TABLE 19 GLOBAL ADHESIVE DISPENSING SYSTEMS MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 20 GLOBAL ADHESIVE EQUIPMENT MARKET BY APPLICATION PROCESS, THROUGH 2021 (\$ MILLIONS) TABLE 21 TABLE 21 GLOBAL ADHESIVE AUXILIARY EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 22 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY REGION, THROUGH 2021 (\$ MILLIONS) TABLE 23 ASIA-PACIFIC ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 24 EUROPEAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 25 NORTH AMERICAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	TABLE 17 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS)	44
2021 (\$ MILLIONS) TABLE 20 GLOBAL ADHESIVE EQUIPMENT MARKET BY APPLICATION PROCESS, THROUGH 2021 (\$ MILLIONS) TABLE 21 TABLE 21 GLOBAL ADHESIVE AUXILIARY EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 22 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY REGION, THROUGH 2021 (\$ MILLIONS) TABLE 23 ASIA-PACIFIC ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 24 EUROPEAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 25 NORTH AMERICAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 25 NORTH AMERICAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY,	TABLE 18 GLOBAL ADHESIVE UNLOADING EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS)	46
TABLE 20 GLOBAL ADHESIVE EQUIPMENT MARKET BY APPLICATION PROCESS, THROUGH 2021 (\$ MILLIONS) TABLE 21 TABLE 21 GLOBAL ADHESIVE AUXILIARY EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS) TABLE 22 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY REGION, THROUGH 2021 (\$ MILLIONS) TABLE 23 ASIA-PACIFIC ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 24 EUROPEAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 25 NORTH AMERICAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, 60	TABLE 19 GLOBAL ADHESIVE DISPENSING SYSTEMS MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS)	48
THROUGH 2021 (\$ MILLIONS) TABLE 22 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY REGION, THROUGH 2021 (\$ MILLIONS) TABLE 23 ASIA-PACIFIC ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 24 EUROPEAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 25 NORTH AMERICAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, 60	TABLE 20 GLOBAL ADHESIVE EQUIPMENT MARKET BY APPLICATION PROCESS, THROUGH 2021 (\$ MILLIONS)	53
2021 (\$ MILLIONS) TABLE 23 ASIA-PACIFIC ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 24 EUROPEAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 25 NORTH AMERICAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, 60	TABLE 21 TABLE 21 GLOBAL ADHESIVE AUXILIARY EQUIPMENT MARKET BY TYPE, THROUGH 2021 (\$ MILLIONS)	56
THROUGH 2021 (\$ MILLIONS) TABLE 24 EUROPEAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS) TABLE 25 NORTH AMERICAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, 60	TABLE 22 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY REGION, THROUGH 2021 (\$ MILLIONS)	57
THROUGH 2021 (\$ MILLIONS) TABLE 25 NORTH AMERICAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY,	TABLE 23 ASIA-PACIFIC ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	58
TABLE 25 NORTH AMERICAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY,	TABLE 24 EUROPEAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	59
·	TABLE 25 NORTH AMERICAN ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	60
	TABLE 26 REST OF THE WORLD ADHESIVE-APPLYING EQUIPMENT MARKET BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	60
	TABLE 27 GLOBAL ADHESIVE MARKET BY APPLICATION, THROUGH 2021 (\$ MILLIONS)	62

TABLE HEADING	PAGE NO.
TABLE 28 GLOBAL ADHESIVE MARKET IN PAPER, BOARD AND RELATED PRODUCT PACKAGING APPLICATIONS BY PRODUCT, THROUGH 2021 (\$ MILLIONS)	64
TABLE 29 ADHESIVES IN CONVERTING AND PACKAGING APPLICATIONS	66
TABLE 30 GLOBAL ADHESIVE MARKET IN CONVERTING AND PACKAGING APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	70
TABLE 31 ADHESIVES FOR FLEXIBLE PACKAGING APPLICATIONS	71
TABLE 32 GLOBAL ADHESIVES IN FLEXIBLE PACKAGING APPLICATIONS MARKET, THROUGH 2021 (\$ MILLIONS)	74
TABLE 33 GLOBAL ADHESIVE MARKET IN HIGH-GLOSS LAMINATING APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	75
TABLE 34 ADHESIVES IN NONWOVEN FABRIC APPLICATIONS	76
TABLE 35 GLOBAL ADHESIVE MARKET IN NONWOVEN FABRIC APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	77
TABLE 36 APPLICATIONS IN THE BOOKBINDING AND GRAPHIC ART INDUSTRY	78
TABLE 37 GLOBAL ADHESIVE MARKET IN BOOKBINDING AND GRAPHIC ART APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	79
TABLE 38 PRESSURE-SENSITIVE ADHESIVE APPLICATIONS	82
TABLE 39 GLOBAL PRESSURE-SENSITIVE ADHESIVE MARKET BY APPLICATION, THROUGH 2021 (\$ MILLIONS)	83
TABLE 40 GLOBAL ADHESIVE MARKET IN PAPER, BOARD AND RELATED PACKAGING PRODUCTS BY REGION, THROUGH 2021 (\$ MILLIONS)	84
TABLE 41 ASIA-PACIFIC ADHESIVE MARKET IN PAPER, BOARD AND RELATED PACKAGING PRODUCTS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	85
TABLE 42 EUROPEAN ADHESIVE MARKET IN PAPER, BOARD AND RELATED PACKAGING PRODUCTS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	85
TABLE 43 NORTH AMERICAN ADHESIVE MARKET IN PAPER, BOARD AND RELATED PACKAGING PRODUCTS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	86
TABLE 44 REST OF THE WORLD ADHESIVE MARKET IN PAPER, BOARD AND RELATED PACKAGING PRODUCTS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	87
TABLE 45 GLOBAL ADHESIVE MARKET IN CIVIL ENGINEERING APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	87
TABLE 46 ADHESIVES IN ON-SITE BUILDING CONSTRUCTION APPLICATIONS	89
TABLE 47 GLOBAL ADHESIVE MARKET IN ON-SITE BUILDING CONSTRUCTION APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	93
TABLE 48 GLOBAL ADHESIVE MARKET IN INFRASTRUCTURE APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	96
TABLE 49 GLOBAL ADHESIVE MARKET IN OFF-SITE CONSTRUCTION APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	97
TABLE 50 GLOBAL ADHESIVE MARKET IN MISCELLANEOUS CIVIL ENGINEERING APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	98
TABLE 51 GLOBAL ADHESIVE MARKET IN CIVIL ENGINEERING APPLICATIONS BY REGION, THROUGH 2021 (\$ MILLIONS)	98
TABLE 52 ASIA-PACIFIC ADHESIVE MARKET IN CIVIL ENGINEERING APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	99
TABLE 53 EUROPEAN ADHESIVE MARKET IN CIVIL ENGINEERING APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	100
TABLE 54 NORTH AMERICAN ADHESIVE MARKET IN CIVIL ENGINEERING APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	100
TABLE 55 REST OF THE WORLD ADHESIVE MARKET IN CIVIL ENGINEERING APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	101
TABLE 56 GLOBAL ADHESIVE MARKET IN WOODWORKING APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	102

TABLE HEADING	PAGE NO.
TABLE 57 ADHESIVES IN WOODWORKING APPLICATIONS	105
TABLE 58 GLOBAL ADHESIVE MARKET IN PRIMARY WOODWORKING APPLICATIONS MARKET, THROUGH 2021 (\$ MILLIONS)	109
TABLE 59 GLOBAL ADHESIVE MARKET IN SECONDARY WOODWORKING APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	112
TABLE 60 GLOBAL ADHESIVE MARKET IN WOODWORKING APPLICATIONS BY REGION, THROUGH 2021 (\$ MILLIONS)	113
TABLE 61 ASIA-PACIFIC ADHESIVE MARKET IN WOODWORKING APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	114
TABLE 62 EUROPEAN ADHESIVE MARKET IN WOODWORKING APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	114
TABLE 63 NORTH AMERICAN ADHESIVE MARKET IN WOODWORKING APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	115
TABLE 64 REST OF THE WORLD ADHESIVE MARKET IN WOODWORKING APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	115
TABLE 65 GLOBAL ADHESIVE MARKET FOR ASSEMBLY APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	116
TABLE 66 ADHESIVE APPLICATIONS IN THE ELECTRICAL AND ELECTRONIC INDUSTRIES	118
TABLE 67 ADHESIVES COMMONLY USED IN THE ELECTRICAL/ELECTRONIC INDUSTRIES	120
TABLE 68 GLOBAL ADHESIVE MARKET IN ELECTRICAL AND ELECTRONIC APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	122
TABLE 69 ADHESIVES IN HEATING, VENTILATING AND AIR CONDITIONING APPLICATIONS	124
TABLE 70 GLOBAL ADHESIVE MARKET IN HEATING, VENTILATING AND AIR CONDITIONING APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	126
TABLE 71 ADHESIVES IN MEDICAL APPLICATIONS	127
TABLE 72 ADHESIVES IN MEDICAL DEVICE APPLICATIONS	130
TABLE 73 ADHESIVES IN MISCELLANEOUS MEDICAL APPLICATIONS	132
TABLE 74 GLOBAL ADHESIVE MARKET IN MEDICAL APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	134
TABLE 75 GLOBAL ADHESIVE MARKET IN ALTERNATE ENERGY APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	137
TABLE 76 GLOBAL ADHESIVE MARKET IN MISCELLANEOUS ASSEMBLY APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	139
TABLE 77 GLOBAL ADHESIVE MARKET IN ASSEMBLY APPLICATIONS BY REGION, THROUGH 2021 (\$ MILLIONS)	140
TABLE 78 ASIA-PACIFIC ADHESIVE MARKET IN ASSEMBLY APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	141
TABLE 79 EUROPEAN ADHESIVE MARKET IN ASSEMBLY APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	141
TABLE 80 NORTH AMERICAN ADHESIVE MARKET IN ASSEMBLY APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	142
TABLE 81 REST OF THE WORLD ADHESIVE MARKET IN ASSEMBLY APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	142
TABLE 82 ADHESIVES IN TRANSPORTATION APPLICATIONS	143
TABLE 83 GLOBAL ADHESIVE MARKET IN TRANSPORTATION APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	146
TABLE 84 GLOBAL ADHESIVE MARKET IN AUTOMOBILE APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	150

TABLE HEADING	PAGE NO.
TABLE 85 GLOBAL ADHESIVE MARKET IN AIRCRAFT AND AEROSPACE APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	152
TABLE 86 GLOBAL ADHESIVE MARKET IN RAIL VEHICLE APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	153
TABLE 87 GLOBAL ADHESIVE MARKET IN MARINE APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	157
TABLE 88 GLOBAL ADHESIVE MARKET IN TRANSPORTATION APPLICATIONS BY REGION, THROUGH 2021 (\$ MILLIONS)	157
TABLE 89 ASIA-PACIFIC ADHESIVE MARKET IN TRANSPORTATION APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	158
TABLE 90 EUROPEAN ADHESIVE MARKET IN TRANSPORTATION APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	159
TABLE 91 NORTH AMERICAN ADHESIVE MARKET IN TRANSPORTATION APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	160
TABLE 92 REST OF THE WORLD ADHESIVE MARKET IN TRANSPORTATION APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	160
TABLE 93 ADHESIVES IN MISCELLANEOUS APPLICATIONS	161
TABLE 94 GLOBAL ADHESIVE MARKET IN MISCELLANEOUS APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	163
TABLE 95 ADHESIVES IN FOOTWEAR AND LEATHER GOODS APPLICATIONS	165
TABLE 96 GLOBAL ADHESIVE MARKET IN FOOTWEAR AND LEATHER GOODS APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	165
TABLE 97 GLOBAL ADHESIVE MARKET IN CONSUMER AND DO-IT-YOURSELF APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	166
TABLE 98 GLOBAL ADHESIVE MARKET IN TIRE MANUFACTURING APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	168
TABLE 99 GLOBAL ADHESIVE MARKET IN PIPE, WIRE AND CABLE MANUFACTURING APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	169
TABLE 100 GLOBAL ADHESIVE MARKET IN TEXTILE MANUFACTURING APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	171
TABLE 101 ADHESIVES IN OTHER MISCELLANEOUS APPLICATIONS	171
TABLE 102 GLOBAL ADHESIVE MARKET IN OTHER MISCELLANEOUS APPLICATIONS, THROUGH 2021 (\$ MILLIONS)	175
TABLE 103 GLOBAL ADHESIVE MARKET IN MISCELLANEOUS APPLICATIONS BY REGION, THROUGH 2021 (\$ MILLIONS)	176
TABLE 104 ASIA-PACIFIC ADHESIVE MARKET IN MISCELLANEOUS APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	177
TABLE 105 EUROPEAN ADHESIVE MARKET IN MISCELLANEOUS APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	177
TABLE 106 NORTH AMERICAN ADHESIVE MARKET IN MISCELLANEOUS APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	178
TABLE 107 REST OF THE WORLD ADHESIVE MARKET IN MISCELLANEOUS APPLICATIONS BY COUNTRY, THROUGH 2021 (\$ MILLIONS)	178
TABLE 108 ADHESIVES FOR VARIOUS MATERIALS	195
TABLE 109 JOINING CHARACTERISTIC COMPARISONS	195
TABLE 110 COMPARISON OF JOINING METHODS	197
TABLE 111 ADHESIVE CHARACTERISTICS BY STRUCTURE	204
TABLE 112 COMPARISON OF ADHESIVES CLASSIFIED BY CURING PROCESS	207
TABLE 113 NATURAL ADHESIVE CHARACTERISTICS	208
TABLE 114 ADHESIVE CLASSIFICATION BY PRODUCT CATEGORY	209

TABLE HEADING	PAGE NO.
TABLE 115 U.S. PATENTS RELATED TO ADHESIVES BASED ON COUNTRY OF ORIGIN, 2013-APRIL 2015	216
TABLE 116 U.S. PATENTS RELATED TO ADHESIVES BASED ON YEAR ISSUED, 2013-APRIL 2015	217
TABLE 117 U.S. PATENTS RELATED TO ADHESIVES BASED ON TECHNOLOGY, 2013-APRIL 2015	217
TABLE 118 U.S. PATENTS RELATED TO ADHESIVES BASED ON COMPANY DEVELOPING THE PATENT, 2013-APRIL 2015	218
TABLE 119 AMERICAN SOCIETY FOR TESTING AND MATERIAL ADHESIVE STANDARDS	219
TABLE 120 MAJOR MERGERS AND ACQUISITIONS IN THE ADHESIVE INDUSTRY, JANUARY 2012-MAY 2015	230
TABLE 121 NORTH AMERICAN MANUFACTURERS	287
TABLE 122 EUROPEAN ADHESIVE MANUFACTURERS	305
TABLE 123 ASIA-PACIFIC ADHESIVE MANUFACTURERS	312
TABLE 124 REST OF THE WORLD ADHESIVE MANUFACTURER	318
TABLE 125 ADHESIVE-APPLYING EQUIPMENT MANUFACTURERS	319
TABLE 126 RAW MATERIALS FOR ADHESIVE MANUFACTURERS	327
TABLE 127 U.S. PATENTS RELATED TO ADHESIVES	333
TABLE 128 NEW ADHESIVE TYPES	347

LIST OF FIGURES

FIGURE TITLE	PAGE NO.
SUMMARY FIGURE GLOBAL ADHESIVE AND ADHESIVE-APPLYING EQUIPMENT MARKET, 2014-2021 (\$ MILLIONS)	9
FIGURE 1 GLOBAL ADHESIVE MARKET BASED ON CURING TECHNOLOGIES, 2014-2021 (\$ MILLIONS)	26
FIGURE 2 GLOBAL ADHESIVE MARKET BASED ON CHEMISTRY, 2014-2021 (\$ MILLIONS)	29
FIGURE 3 GLOBAL ADHESIVE MARKETS BY REGION, 2014-2021 (\$ MILLIONS)	30
FIGURE 4 GLOBAL ACRYLIC ADHESIVE MARKET BY TYPE, 2014-2021 (\$ MILLIONS)	34
FIGURE 5 GLOBAL PRESSURE-SENSITIVE ADHESIVE MARKET BY TYPE, 2014-2021 (\$ MILLIONS)	35
FIGURE 6 GLOBAL EPOXY ADHESIVE MARKET BY TYPE, 2014-2021 (\$ MILLIONS)	36
FIGURE 7 GLOBAL REACTIVE POLYURETHANE ADHESIVE MARKET BY TYPE, 2014-2021 (\$ MILLIONS)	37
FIGURE 8 GLOBAL POLYVINYL ADHESIVE MARKET BY TYPE, 2014-2021 (\$ MILLIONS)	38
FIGURE 9 GLOBAL CYANOACRYLIC ADHESIVE MARKET BY TYPE, 2014-2021 (\$ MILLIONS)	40
FIGURE 10 GLOBAL ANAEROBIC ADHESIVE MARKET BY TYPE, 2014-2021 (\$ MILLIONS)	41
FIGURE 11 GLOBAL MISCELLANEOUS ADHESIVE MARKET BY TYPE, 2014-2021 (\$ MILLIONS)	42
FIGURE 12 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY TYPE, 2014-2021 (\$ MILLIONS)	44
FIGURE 13 GLOBAL ADHESIVE UNLOADING EQUIPMENT MARKET BY TYPE, 2014-2021 (\$ MILLIONS)	46
FIGURE 14 GLOBAL ADHESIVE DISPENSING SYSTEMS MARKET BY TYPE, 2014-2021 (\$ MILLIONS)	48
FIGURE 15 GLOBAL ADHESIVE EQUIPMENT MARKET BY APPLICATION PROCESS, 2014-2021 (\$ MILLIONS)	53
FIGURE 16 GLOBAL ADHESIVE AUXILIARY EQUIPMENT MARKET BY TYPE, 2014-2021 (\$ MILLIONS)	56
FIGURE 17 GLOBAL ADHESIVE-APPLYING EQUIPMENT MARKET BY REGION, 2014-2021 (\$ MILLIONS)	57
FIGURE 18 GLOBAL ADHESIVE MARKET BY APPLICATION, 2014-2021 (\$ MILLIONS)	63
FIGURE 19 GLOBAL ADHESIVE MARKET IN PAPER, BOARD AND RELATED PRODUCT PACKAGING APPLICATIONS BY PRODUCT, 2014-2021 (\$ MILLIONS)	64
FIGURE 20 GLOBAL ADHESIVE MARKET IN PAPER, BOARD AND RELATED PACKAGING PRODUCTS BY REGION, 2014-2021 (\$ MILLIONS)	84
FIGURE 21 GLOBAL ADHESIVE MARKET IN CIVIL ENGINEERING APPLICATIONS, 2014-2021 (\$ MILLIONS)	88
FIGURE 22 GLOBAL ADHESIVE MARKET IN CIVIL ENGINEERING APPLICATIONS BY REGION, 2014-2021 (\$ MILLIONS)	98
FIGURE 23 GLOBAL ADHESIVE MARKET IN WOODWORKING APPLICATIONS, 2014-2021 (\$ MILLIONS)	102
FIGURE 24 GLOBAL ADHESIVE MARKET IN WOODWORKING APPLICATIONS BY REGION, 2014-2021 (\$ MILLIONS)	113
FIGURE 25 GLOBAL ADHESIVE MARKET FOR ASSEMBLY APPLICATIONS, 2014-2021 (\$ MILLIONS)	116
FIGURE 26 GLOBAL ADHESIVE MARKET IN ASSEMBLY APPLICATIONS REGION, 2014-2021 (\$ MILLIONS)	140
FIGURE 27 GLOBAL ADHESIVE MARKET IN TRANSPORTATION APPLICATIONS, 2014-2021 (\$ MILLIONS)	146

FIGURE TITLE	PAGE NO.
FIGURE 28 GLOBAL ADHESIVE MARKET IN TRANSPORTATION APPLICATIONS BY REGION, 2014-2021 (\$ MILLIONS)	158
FIGURE 29 GLOBAL ADHESIVE MARKET IN MISCELLANEOUS APPLICATIONS, 2014-2021 (\$ MILLIONS)	163
FIGURE 30 GLOBAL ADHESIVE MARKET IN MISCELLANEOUS APPLICATIONS BY REGION, 2014-2021 (\$ MILLIONS)	176