

## Advanced Ceramics - Global Strategic Business Report

**Description:** This report analyzes the worldwide markets for Advanced Ceramics in US\$ Million by the following Product Segments: Monolithic Ceramics, Coatings, and Matrix Composites. Major End-Use Segments also analyzed are Chemical, Electrical, Electronic, Machinery, Transportation, and Others. The report provides separate comprehensive analytics for the US, Canada, Japan, Europe, Asia-Pacific, Middle East, and Latin America. Annual estimates and forecasts are provided for the period 2010 through 2018. A six-year historic analysis is also provided for these markets. The report profiles 148 companies including key manufacturers of Advanced Ceramic Materials such as Applied Ceramics Inc., Ceradyne, Inc., CPS Technologies Corporation, CeramTec AG, COI Ceramics Inc., CoorsTek, Inc., Cookson Group PLC, Covalent Materials Corporation, General Electric Company, International Ceramic Engineering, Materion Corporation, and Momentive Performance Materials, Inc. Manufacturers of Electro-Ceramic Components also discussed in the report include KEMET Corporation, Kyocera Corporation, AVX Corp., American Technical Ceramics Corp., Kyocera Industrial Ceramics Corporation, Morgan Technical Ceramics, Murata Manufacturing Co. Ltd., NGK Insulators Ltd., Samsung Electro-Mechanics Company Ltd., Taiyo Yuden Co., Ltd., TDK Corporation, Vishay Intertechnology, Inc., and Yageo Corp. Market data and analytics are derived from primary and secondary research. Company profiles are primarily based upon search engine sources in the public domain.

Please note: Reports are sold as single-site single-user licenses. Electronic versions require 24-48 hours as each copy is customized to the client with digital controls and custom watermarks.

For information on site licence pricing please click on Enquire before buying

**Contents:** ADVANCED CERAMICS  
A GLOBAL STRATEGIC BUSINESS REPORT

### CONTENTS

#### I. INTRODUCTION, METHODOLOGY & PRODUCT DEFINITIONS

Study Reliability and Reporting Limitations	I-1
Disclaimers	I-2
Data Interpretation & Reporting Level	I-2
Quantitative Techniques & Analytics	I-3
Product Definitions and Scope of Study	I-3
Product Segments	I-4
Monolithic Ceramics	I-4
Coatings	I-4
Matrix Composites	I-4
End-Use Sectors	I-4
Electronic Components	I-4
Electrical Parts Market	I-4
Transportation Equipment	I-5
Industrial Machinery	I-5
Chemicals	I-5
Other Markets	I-5

#### II. Executive Summary

1. INDUSTRY OVERVIEW	II-1
A Quick Primer	II-1

Market Snippets	II-1
Current and Future Analysis	II-2
Advanced Ceramics Market by Geographic Region	II-2
Advanced Ceramics Market by Product Segment	II-2
Advanced Ceramics Market by End-use Sector	II-2
US & Japan - Traditional Revenue Contributors	II-3
Expanding Market Scope for Engineering Ceramics in Developed Markets	II-3
Application Trends Differ Across Geographic Regions	II-3
Robust Growth Outlook for Asia-Pacific	II-4
Increasing Role of Emerging Markets in the Global Ceramics Trade	II-4
Top 10 Ceramics Exporting Countries in the World - Ranked on the Basis of Value Exports in 2010	II-5
Top 10 Ceramics Importing Countries in the World - Ranked on the Basis of Value Imports in 2010	II-5
Competition	II-5
Table 1: Leading Players in the Global Advanced Ceramics Market (2011): Percentage Breakdown of Market Share for Kyocera, CoorsTek, Ceradyne, Vishay, Murata and Others (includes corresponding Graph/Chart)	II-6
Recession Tames Down Market Growth in 2008-10	II-6
Short Term Demand Forecasts by Product Type	II-7
2. TRENDS AND ISSUES	II-8
Electronic Ceramics Lead the Pack	II-8
Table 2: Leading Manufacturers of Ceramic Capacitors Worldwide (2011): Percentage Breakdown of Market Share by Company (includes corresponding Graph/Chart)	II-8
Medical Field to Emerge as Major End-Use Area for Advanced Ceramics	II-8
Advanced Ceramics in Next-Gen Implantable Pulse Generators	II-9
Silicon Nitride Ceramics in Orthopaedic Surgery	II-9
Automotive Applications Regain Poise, Post Recession	II-10
Development of Niobium and Tantalum Propel Electronic Ceramics Market	II-10
Rising Demand for Ceramic Armor Fueling Structural Ceramics Sales	II-11
Increased Applications for Advanced Ceramics in Aerospace Industry	II-11
Cost-Effective Manufacturing Regions Attract Foreign Companies	II-11
Challenges for Commercialization of Advanced Ceramics	II-11
3. EMERGING APPLICATIONS	II-13
Smart Ceramics Zoom Ahead	II-13
Fuel Cells and Batteries Promising a Huge Potential	II-13
High-Performance Ceramics Grab Significant Position in Automobile Sector	II-13
Piezo Ceramic Components Open New Avenues	II-14
Metal Matrix Composite - A Prominent Species	II-14
Ceramic Products Aid in Process Reliability	II-14
Superconductors Driving Demand for Advanced Ceramics	II-15
Energy Sector Spurs New Opportunities for Advanced Ceramics	II-15
4. PRODUCT OVERVIEW	II-16
Ceramics	II-16
Characteristics of Ceramics	II-16
Traditional Ceramics	II-16
Advanced Ceramics	II-16
Manufacture of Advanced Ceramics	II-16
Design of Advanced Ceramics	II-17
Key Developments in Advanced Ceramics	II-17
Near Net Shape Technique Reducing Manufacturing Costs	II-17
History	II-17

A Segmental Analysis	II-17	
Product Segments	II-18	
Monolithic Ceramics	II-18	
Electronic Ceramics, the Largest Product Segment Under Monolithics	II-18	
Applications of Electronic Ceramics	II-19	
Ceramic Coatings	II-19	
Ceramic Matrix Composites	II-19	
End-Use Markets	II-20	
Electronic Components Market	II-20	
Electrical Parts Market	II-20	
Transportation Equipment	II-20	
Industrial Machinery	II-20	
Chemicals	II-21	
Other Markets	II-21	
Important End-Use Markets and Key Application Areas of Advanced Ceramics	II-21	
5. RAW MATERIALS - AN OVERVIEW		II-23
Alumina	II-23	
Zirconia	II-23	
Silicon Nitride	II-23	
Silicon Carbide	II-23	
Transformation Toughened-Zirconia		II-23
Transformation Toughened-Alumina		II-24
6. PRODUCT INNOVATIONS/INTRODUCTIONS		II-25
CeramTec to Unveil CeramCool® Ceramic System		II-25
Yageo Introduces Automotive Grade Thick Film R-Chip and MLCC AC Series	II-25	
API Technologies Launches MIL Grade SMPS Ceramic Capacitors		II-25
Murata Unveils KCM Series MLCC for Automotives		II-25
Morgan Technical Adds Bimorph Range to Electro Ceramics Portfolio		II-26
KEMET Rolls Out High Voltage Multilayer Ceramic Capacitors		II-26
KEMET Launches HiQ-CBR Series Surface Mount Multilayer Ceramic Capacitors	II-26	
KEMET Unveils High Voltage SM Series Capacitors		II-27
KEMET Introduces Multilayer Ceramic Capacitor Series in EIA 0402 Case Size	II-27	
KEMET Rolls Out Automotive Grade High Voltage Multilayer Ceramic Capacitors	II-27	
KEMET Launches Military and Space Grade Ceramic Stacked Capacitors in KPS MIL Series	II-27	
TDK-EPC Unveils TDK MLG0603S Multilayer Ceramic Coils Series		II-27
Kyocera to Introduce Ceramic FK-140 Knife and CP-10 Peeler		II-28
Zircotec Unveils ThermoHold Ceramic Coatings		II-28
Zircotec Develops Liquid Black Ceramic Coating		II-28
Zircotec Develops Performance Diesel Ceramic Coating		II-28
EonCoat LLC Unveils EonCoat Ceramic Coating		II-29
7. PRODUCT INNOVATIONS IN THE RECENT PAST - A PERSPECTIVE BUILDER		II-30
CeramTec Launches CeramCool® Liquid Cooling Sink		II-30
KEMET Unveils Compact Ceramic Chip Capacitor Array		II-30
KEMET Rolls Out Compact Surface Mount Multilayer Ceramic Capacitors	II-30	
KEMET Introduces GR900 High Reliability Ceramic Capacitor Series		II-30
Kyocera Launches Ceramic Knife Sharpener		II-30
TDK-EPC Unveils MLG0402Q Series Multilayer Ceramic Coils		II-31
TDK-EPC Introduces New Multilayer Ceramic Capacitor Series		II-31
AVX Manufactures UT Series Ceramic Capacitors		II-31
General Electric Company's GE Aviation Unit Introduces Ceramic Matrix Composites into Jet Engines		II-31
Holystone International Launches SMC and HSC Ceramic Capacitor		

Series	II-32	
TDK Unveils CGA Ceramic Capacitor Series	II-32	
Murata Electronics North America Launches GJ8 Multi-layer Monolithic Ceramic Chip Capacitors	II-33	
MTC ElectroCeramics Launches Ultrasound Sensors and Piezo-Electric Ceramic Components for Measuring Flow in Utilities	II-33	
Zayani Motors Introduces Ceramic 70 Heat Rejecting Film	II-34	
MTC Wesgo/Duramic Launches Custom-Built Alumina Fixtures	II-34	
Morgan Technical Ceramics Develops Novel Processing Technique	II-34	
Morgan Technical Ceramics Launches Novel Range of Piezoelectric Materials	II-35	
<b>8. RECENT INDUSTRY ACTIVITY</b>	<b>II-36</b>	
CoorsTek Takes Over ANCeram GmbH & Co. KG Technical Ceramics	II-36	II-36
Cookson Group Takes Over Metallurgica	II-36	
KEMET Snaps Up Niotan	II-36	
Ceradyne Takes Over Stake in Graphite Machining Services and Innovations	II-37	
CUMI International to Take Over RHI Isithebe	II-37	
Kemet Signs Agreement to Acquire Stake in NEC Tokin	II-37	
Mantec Merges Three Ceramic Business Subsidiaries	II-37	
NGK Insulators to Establish HONEYCERAM Substrates Plant in Poland	II-37	
Sonakote Enters into Distributor Partnership with CerakoteTM Ceramic Coatings	II-38	
Ceradyne Inks Distribution Deal with Interwell	II-38	
Carborundum Universal Selects Hydraulic Press of Sacmi for Industrial Ceramics Facility	II-38	
CoorsTek Takes Over BAE Systems Advanced Ceramics	II-38	II-38
Kyocera Acquires Unimerco Group	II-39	
Ceradyne Acquires Interest in Yamanaka EP	II-39	
CoorsTek Concludes Acquisition of Advanced Ceramics Unit of Saint-Gobain	II-39	
Ludowici Australia Takes Over Rojan Advanced Ceramics	II-40	II-40
KEMET Acquires Cornell Dubilier Foil Facility	II-40	
Brush Engineered Materials Undergoes Name Change to Materion Corporation	II-40	
Ceradyne Bags Ceramic Body Armor Supply Order from USSOCOM	II-40	II-40
<b>9. CORPORATE ACTIVITY IN THE RECENT PAST - A PERSPECTIVE BUILDER</b>	<b>II-41</b>	<b>II-41</b>
Semicon Associates Acquires IP Rights over Ceramic Impregnated Dispenser Cathode Technology	II-41	
KEMET to Consolidate Film and Electrolytics and Ceramic Business Groups	II-41	
Ferro Takes Over Ceramic Coatings Facility from Pharaohs Ceramic Group	II-41	
Morgan Technical Ceramics and Kennametal Sintec Keramik Enter into Exclusive Distribution Agreement in Europe	II-42	
Zircotec Unveils Online Shop for ZircoFlexTM	II-42	
BLOODHOUND SSC Project Chooses Zircotec as Exclusive Supplier	II-42	II-42
BAE Systems Laps Up Advanced Ceramics Inc.	II-43	
ETEC Gesellschaft für technische Keramik Adopts New Name	II-43	II-43
WWRD Holdings Acquires Waterford Wedgwood	II-43	
CoorsTek Enters into Partnership with IBS of America	II-43	II-43
Teka Industrial Takes Over Vitrogar	II-43	
Valentine Chemicals Buys Business of 3M	II-43	
W. C. Heraeus Purchases BASF Catalysts Ceramic Colors and Thick Film Business	II-44	
Süd-Chemie Purchases Hi-Tech Ceramics	II-44	
NSTDA Inks Agreement with Henson International Limited	II-44	II-44
Praxair Surface Technologies Establishes New Dedicated Production Facility	II-44	
SIRIM to Establish Ceramic Technology Excellence Center	II-44	II-44
Paragon Toner Acquires Lexon Technologies	II-45	II-45

CERAM Enters into Technology Partnership with Morgan Technical Ceramics II-45

10. FOCUS ON SELECT GLOBAL PLAYERS	II-46
Manufacturers of Advanced Ceramic Materials	II-46
Applied Ceramics Inc. (USA)	II-46
Ceradyne, Inc. (USA)	II-46
CPS Technologies Corporation (USA)	II-46
CeramTec AG (Germany)	II-47
COI Ceramics Inc. (USA)	II-47
CoorsTek, Inc. (USA)	II-47
Cookson Group PLC, (UK)	II-48
Covalent Materials Corporation (Japan)	II-48
General Electric Company (USA)	II-48
International Ceramic Engineering (USA)	II-49
Materion Corporation (USA)	II-49
Momentive Performance Materials, Inc. (USA)	II-49
Rauschert GmbH (Germany)	II-50
Manufacturers of Electro-Ceramic Components	II-50
KEMET Corporation (USA)	II-50
Kyocera Corporation (Japan)	II-50
AVX Corp. (USA)	II-51
American Technical Ceramics Corp. (USA)	II-51
Kyocera Industrial Ceramics Corporation (USA)	II-51
Morgan Technical Ceramics (UK)	II-52
Murata Manufacturing Co. Ltd. (Japan)	II-52
NGK Insulators Ltd. (Japan)	II-52
Samsung Electro-Mechanics Company Ltd. (South Korea)	II-53
Taiyo Yuden Co., Ltd. (Japan)	II-53
TDK Corporation (Japan)	II-53
Vishay Intertechnology, Inc. (USA)	II-54
Yageo Corp. (Taiwan)	II-54

11. GLOBAL MARKET PERSPECTIVE II-55

Table 3: World Recent Past, Current & Future Analysis for Advanced Ceramics by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific, (excluding Japan), Middle East and Latin America Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart) II-55

Table 4: World Historic Review for Advanced Ceramics by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific, (excluding Japan), Middle East and Latin America Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart) II-56

Table 5: World 15-Year Perspective for Advanced Ceramics by Geographic Region - Percentage Breakdown of Value Sales for US, Canada, Japan, Europe, Asia-Pacific, (excluding Japan), Middle East and Latin America Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart) II-57

Global Advanced Ceramics Market by Product Segment II-58

Table 6: World Recent Past, Current & Future Analysis for Matrix Composites by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific, (excluding Japan), Middle East and Latin America Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart) II-58

Table 7: World Historic Review for Matrix Composites by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific, (excluding Japan), Middle East and Latin American Markets

Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart) II-59

Table 8: World 15-Year Perspective for Matrix Composites by Geographic Region - Percentage Breakdown of Value Sales for US, Canada, Japan, Europe, Asia-Pacific, (excluding Japan), Middle East and Latin American Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart) II-60

Table 9: World Recent Past, Current & Future Analysis for Coatings by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific, (excluding Japan), Middle East and Latin America Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart) II-61

Table 10: World Historic Review for Coatings by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific, (excluding Japan), Middle East and Latin America Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart) II-62

Table 11: World 15-Year Perspective for Coatings by Geographic Region - Percentage Breakdown of Value Sales for US, Canada, Japan, Europe, Asia-Pacific, (excluding Japan), Middle East and Latin America Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart) II-63

Table 12: World Recent Past, Current & Future Analysis for Monolithic Ceramics by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific, (excluding Japan), Middle East and Latin America Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart) II-64

Table 13: World Historic Review for Monolithic Ceramics by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific, (excluding Japan), Middle East and Latin American Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart) II-65

Table 14: World 15-Year Perspective for Monolithic Ceramics by Geographic Region - Percentage Breakdown of Value Sales for US, Canada, Japan, Europe, Asia-Pacific, (excluding Japan), Middle East and Latin America Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart) II-66  
Global Advanced Ceramics Market by End-use Sector II-67

Table 15: World Recent Past, Current & Future Analysis for Chemical End-use Sector by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific, (excluding Japan), Middle East and Latin America Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart) II-67

Table 16: World Historic Review for Chemical End-use Sector by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific, (excluding Japan), Middle East and Latin American Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart) II-68

Table 17: World 15-Year Perspective for Chemical End-use Sector by Geographic Region - Percentage Breakdown of Value Sales for US, Canada, Japan, Europe, Asia-Pacific, (excluding

Japan), Middle East and Latin America Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart) II-69

Table 18: World Recent Past, Current & Future Analysis for Electrical End-use Sector by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific, (excluding Japan), Middle East and Latin America Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart) II-70

Table 19: World Historic Review for Electrical End-use Sector by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific, (excluding Japan), Middle East and Latin American Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart) II-71

Table 20: World 15-Year Perspective for Electrical End-use Sector by Geographic Region - Percentage Breakdown of Value Sales for US, Canada, Japan, Europe, Asia-Pacific, (excluding Japan), Middle East and Latin America Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart) II-72

Table 21: World Recent Past, Current & Future Analysis for Electronic End-use Sector by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific, (excluding Japan), Middle East and Latin America Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart) II-73

Table 22: World Historic Review for Electronic End-use Sector by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific, (excluding Japan), Middle East and Latin American Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart) II-74

Table 23: World 15-Year Perspective for Electronic End-use Sector by Geographic Region - Percentage Breakdown of Value Sales for US, Canada, Japan, Europe, Asia-Pacific, (excluding Japan), Middle East and Latin America Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart) II-75

Table 24: World Recent Past, Current & Future Analysis for Machinery End-use Sector by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific, (excluding Japan), Middle East and Latin America Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart) II-76

Table 25: World Historic Review for Machinery End-use Sector by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific, (excluding Japan), Middle East and Latin American Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart) II-77

Table 26: World 15-Year Perspective for Machinery End-use Sector by Geographic Region - Percentage Breakdown of Value Sales for US, Canada, Japan, Europe, Asia-Pacific, (excluding Japan), Middle East and Latin America Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart) II-78

Table 27: World Recent Past, Current & Future Analysis for Transportation End-use Sector by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific, (excluding Japan), Middle East and Latin America Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart) II-79

Table 28: World Historic Review for Transportation End-use Sector by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific, (excluding Japan), Middle East and Latin American Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart) II-80

Table 29: World 15-Year Perspective for Transportation End-use Sector by Geographic Region - Percentage Breakdown of Value Sales for US, Canada, Japan, Europe, Asia-Pacific, (excluding Japan), Middle East and Latin America Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart) II-81

Table 30: World Recent Past, Current & Future Analysis for Others End-use Sector by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific, (excluding Japan), Middle East and Latin America Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart) II-82

Table 31: World Historic Review for Others End-use Sector by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific, (excluding Japan), Middle East and Latin American Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart) II-83

Table 32: World 15-Year Perspective for Others End-use Sector by Geographic Region - Percentage Breakdown of Value Sales for US, Canada, Japan, Europe, Asia-Pacific (excluding Japan), Middle East and Latin America Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart) II-84

## III. MARKET

1. THE UNITED STATES	III-1
A. Market Analysis	III-1
Outlook	III-1
Current & Future Analysis	III-1
Advanced Ceramics - Looking Ahead	III-1
Electronic Ceramics: The Largest Segment	III-2
Structural Ceramics: Spearheading Growth	III-2
Table 33: The North American Structural Ceramics Market (2012): Percentage Share Breakdown of Revenue by End-Use Application (includes corresponding Graph/Chart)	III-2
Medical Market to Boost Market Prospects for Advanced Ceramics	III-3
Transportation Equipment Sector Spurs Growth in the US Market	III-3
Monolithic Ceramics - A Predominant Variety	III-3
Cordierite, Ferrite, & Titanate to Post Fastest Gains by Raw Material	III-3
Issues Affecting Growth in Advanced Ceramics Market	III-4
Key Statistical Findings	III-4
Table 34: US Market for Advanced Ceramics (2010): Percentage Market Share Breakdown of Leading Players (includes corresponding Graph/Chart)	III-4



Table 35: Advanced Ceramics Market in the US (2011):  
Percentage Share Breakdown of Demand by Raw Material Type  
(includes corresponding Graph/Chart) III-5

Table 36: Use of Advanced Ceramics in the Industrial  
Machinery Market in the United States (2007& 2011):  
Percentage Share Breakdown of Dollar Sales by Application  
(includes corresponding Graph/Chart) III-5

Table 37: Use of Advanced Ceramics in the Transportation  
Equipment Market in the United States (2011): Percentage  
Share Breakdown of Dollar Sales by Application (includes  
corresponding Graph/Chart) III-6

Table 38: US Market for Ferrite Ceramics (2011): Percentage  
Share Breakdown of Dollar Sales by End-Use Segment  
(includes corresponding Graph/Chart) III-6  
Technological/Product Innovations/Introductions III-6  
Recent Industry Activity III-10  
Key Players III-14

## B. Market Analytics III-20

Table 39: US Recent Past, Current & Future Analysis for  
Advanced Ceramics by Product Segment - Matrix Composites,  
Coatings and Monolithic Ceramics Markets Independently  
Analyzed with Annual Sales in US\$ Million for Years 2010  
through 2018 (includes corresponding Graph/Chart) III-20

Table 40: US Historic Review for Advanced Ceramics by  
Product Segment - Matrix Composites, Coatings and Monolithic  
Ceramics Markets Independently Analyzed with Annual Sales in  
US\$ Million for Years 2004 through 2009 (includes  
corresponding Graph/Chart) III-21

Table 41: US 15-Year Perspective for Advanced Ceramics by  
Product Segment - Percentage Breakdown of Value Sales for  
Matrix Composites, Coatings and Monolithic Ceramics Markets  
for Years 2004, 2011 & 2018 (includes corresponding  
Graph/Chart) III-22

Table 42: US Recent Past, Current & Future Analysis for  
Advanced Ceramics by End-use Sector - Chemical, Electrical,  
Electronic, Machinery, Transportation and Others Markets  
Independently Analyzed with Annual Sales in US\$ Million for  
Years 2010 through 2018 (includes corresponding Graph/Chart) III-23

Table 43: US Historic Review for Advanced Ceramics by  
End-use Sector - Chemical, Electrical, Electronic,  
Machinery, Transportation and Others Markets Independently  
Analyzed with Annual Sales in US\$ Million for Years 2004  
through 2009 (includes corresponding Graph/Chart) III-24

Table 44: US 15-Year Perspective for Advanced Ceramics by  
End-use Sector - Percentage Breakdown of Value Sales for  
Chemical, Electrical, Electronic, Machinery, Transportation  
and Others Markets for Years 2004, 2011 & 2018 (includes  
corresponding Graph/Chart) III-25

## 2. CANADA III-26

A. Market Analysis III-26  
Current and Future Analysis III-26

B. Market Analytics III-27

Table 45: Canadian Recent Past, Current & Future Analysis  
for Advanced Ceramics by Product Segment - Matrix

Composites, Coatings and Monolithic Ceramics Markets  
Independently Analyzed with Annual Sales in US\$ Million for  
Years 2010 through 2018 (includes corresponding Graph/Chart) III-27

Table 46: Canadian Historic Review for Advanced Ceramics by  
Product Segment - Matrix Composites, Coatings and Monolithic  
Ceramics Markets Independently Analyzed with Annual Sales in  
US\$ Million for Years 2004 through 2009 (includes  
corresponding Graph/Chart) III-28

Table 47: Canadian 15-Year Perspective for Advanced Ceramics  
by Product Segment - Percentage Breakdown of Value Sales for  
Matrix Composites, Coatings and Monolithic Ceramics Markets  
for Years 2004, 2011 & 2018 (includes corresponding  
Graph/Chart) III-29

Table 48: Canadian Recent Past, Current & Future Analysis  
for Advanced Ceramics by End-use Sector - Chemical,  
Electrical, Electronic, Machinery, Transportation and Others  
Markets Independently Analyzed with Annual Sales in US\$  
Million for Years 2010 through 2018 (includes corresponding  
Graph/Chart) III-30

Table 49: Canadian Historic Review for Advanced Ceramics by  
End-use Sector - Chemical, Electrical, Electronic,  
Machinery, Transportation and Others Markets Independently  
Analyzed with Annual Sales in US\$ Million for Years 2004  
through 2009 (includes corresponding Graph/Chart) III-31

Table 50: Canadian 15-Year Perspective for Advanced Ceramics  
by End-use Sector - Percentage Breakdown of Value Sales for  
Chemical, Electrical, Electronic, Machinery, Transportation  
and Others Markets for Years 2004, 2011 & 2018 (includes  
corresponding Graph/Chart) III-32

3. JAPAN	III-33
A. Market Analysis	III-33
Current & Future Analysis	III-33
Research & Development Scenario	III-33
Advances Made by Japanese Ceramics Industry in the Past one Year	III-33
Technological/Product Innovations/Introductions	III-34
Recent Industry Activity	III-36
Key Players	III-37
B. Market Analytics	III-40
Table 51: Japanese Recent Past, Current & Future Analysis for Advanced Ceramics by Product Segment - Matrix Composites, Coatings and Monolithic Ceramics Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart)	III-40
Table 52: Japanese Historic Review for Advanced Ceramics by Product Segment - Matrix Composites, Coatings and Monolithic Ceramics Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart)	III-41
Table 53: Japanese 15-Year Perspective for Advanced Ceramics by Product Segment - Percentage Breakdown of Value Sales for Matrix Composites, Coatings and Monolithic Ceramics Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart)	III-42

Table 54: Japanese Recent Past, Current & Future Analysis for Advanced Ceramics by End-use Sector - Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart) III-43

Table 55: Japanese Historic Review for Advanced Ceramics by End-use Sector - Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart) III-44

Table 56: Japanese 15-Year Perspective for Advanced Ceramics by End-use Sector - Percentage Breakdown of Value Sales for Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart) III-45

4. EUROPE	III-46
A. Market Analysis	III-46
Current & Future Analysis	III-46
Growing Market for Advanced Ceramics in Europe	III-46
B. Market Analytics	III-47
Table 57: European Recent Past, Current & Future Analysis for Advanced Ceramics by Geographic Region - France, Germany, Italy, UK, Spain, Russia and Rest of Europe Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart)	III-47

Table 58: European Historic Review for Advanced Ceramics by Geographic Region - France, Germany, Italy, UK, Spain, Russia and Rest of Europe Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart) III-48

Table 59: European 15-Year Perspective for Advanced Ceramics by Geographic Region - Percentage Breakdown of Value Sales for France, Germany, Italy, UK, Spain, Russia and Rest of Europe Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart) III-49

Table 60: European Recent Past, Current & Future Analysis for Advanced Ceramics by Product Segment - Matrix Composites, Coatings and Monolithic Ceramics Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart) III-50

Table 61: European Historic Review for Advanced Ceramics by Product Segment - Matrix Composites, Coatings and Monolithic Ceramics Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart) III-51

Table 62: European 15-Year Perspective for Advanced Ceramics by Product Segment - Percentage Breakdown of Value Sales for Matrix Composites, Coatings and Monolithic Ceramics Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart) III-52

Table 63: European Recent Past, Current & Future Analysis for Advanced Ceramics by End-use Sector - Chemical, Electrical, Electronic, Machinery, Transportation and Others

Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart) III-53

Table 64: European Historic Review for Advanced Ceramics by End-use Sector - Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart) III-54

Table 65: European 15-Year Perspective for Advanced Ceramics by End-use Sector - Percentage Breakdown of Value Sales for Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart) III-55

4a. FRANCE III-56  
 A. Market Analysis III-56  
   Current & Future Analysis III-56  
 B. Market Analytics III-57  
 Table 66: French Recent Past, Current & Future Analysis for Advanced Ceramics by Product Segment - Matrix Composites, Coatings and Monolithic Ceramics Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart) III-57

Table 67: French Historic Review for Advanced Ceramics by Product Segment - Matrix Composites, Coatings and Monolithic Ceramics Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart) III-58

Table 68: French 15-Year Perspective for Advanced Ceramics by Product Segment - Percentage Breakdown of Value Sales for Matrix Composites, Coatings and Monolithic Ceramics Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart) III-59

Table 69: French Recent Past, Current & Future Analysis for Advanced Ceramics by End-use Sector - Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart) III-60

Table 70: French Historic Review for Advanced Ceramics by End-use Sector - Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart) III-61

Table 71: French 15-Year Perspective for Advanced Ceramics by End-use Sector - Percentage Breakdown of Value Sales for Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart) III-62

4b. GERMANY III-63  
 A. Market Analysis III-63  
   Current & Future Analysis III-63  
   Technological/Product Innovations/Introductions III-63  
   Recent Industry Activity III-64  
   Key Players III-65  
 B. Market Analytics III-66

Table 72: German Recent Past, Current & Future Analysis for Advanced Ceramics by Product Segment - Matrix Composites, Coatings and Monolithic Ceramics Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart) III-66

Table 73: German Historic Review for Advanced Ceramics by Product Segment - Matrix Composites, Coatings and Monolithic Ceramics Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart) III-67

Table 74: German 15-Year Perspective for Advanced Ceramics by Product Segment - Percentage Breakdown of Value Sales for Matrix Composites, Coatings and Monolithic Ceramics Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart) III-68

Table 75: German Recent Past, Current & Future Analysis for Advanced Ceramics by End-use Sector - Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart) III-69

Table 76: German Historic Review for Advanced Ceramics by End-use Sector - Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart) III-70

Table 77: German 15-Year Perspective for Advanced Ceramics by End-use Sector - Percentage Breakdown of Value Sales for Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart) III-71

#### 4c. ITALY III-72

A. Market Analysis III-72

Current & Future Analysis III-72

B. Market Analytics III-73

Table 78: Italian Recent Past, Current & Future Analysis for Advanced Ceramics by Product Segment - Matrix Composites, Coatings and Monolithic Ceramics Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart) III-73

Table 79: Italian Historic Review for Advanced Ceramics by Product Segment - Matrix Composites, Coatings and Monolithic Ceramics Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart) III-74

Table 80: Italian 15-Year Perspective for Advanced Ceramics by Product Segment - Percentage Breakdown of Value Sales for Matrix Composites, Coatings and Monolithic Ceramics Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart) III-75

Table 81: Italian Recent Past, Current & Future Analysis for Advanced Ceramics by End-use Sector - Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart) III-76

Table 82: Italian Historic Review for Advanced Ceramics by End-use Sector - Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart) III-77

Table 83: Italian 15-Year Perspective for Advanced Ceramics by End-use Sector - Percentage Breakdown of Value Sales for Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart) III-78

4d. THE UNITED KINGDOM	III-79
A. Market Analysis	III-79
Current & Future Analysis	III-79
Technological/Product Innovations/Introductions	III-79
Recent Industry Activity	III-81
Key Players	III-82
B. Market Analytics	III-84
Table 84: UK Recent Past, Current & Future Analysis for Advanced Ceramics by Product Segment - Matrix Components, Coatings and Monolithic Ceramics Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart)	III-84
Table 85: UK Historic Review for Advanced Ceramics by Product Segment - Matrix Components, Coatings and Monolithic Ceramics Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart)	III-85
Table 86: UK 15-Year Perspective for Advanced Ceramics by Product Segment - Percentage Breakdown of Value Sales for Matrix Components, Coatings and Monolithic Ceramics Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart)	III-86
Table 87: UK Recent Past, Current & Future Analysis for Advanced Ceramics by End-use Sector - Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart)	III-87
Table 88: UK Historic Review for Advanced Ceramics by End-use Sector - Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart)	III-88
Table 89: UK 15-Year Perspective for Advanced Ceramics by End-use Sector - Percentage Breakdown of Value Sales for Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart)	III-89
4e. SPAIN	III-90
A. Market Analysis	III-90
Current & Future Analysis	III-90
Market Snapshot	III-90
B. Market Analytics	III-91
Table 90: Spanish Recent Past, Current & Future Analysis for Advanced Ceramics by Product Segment - Matrix Composites,	

Coatings and Monolithic Ceramics Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart) III-91

Table 91: Spanish Historic Review for Advanced Ceramics by Product Segment - Matrix Composites, Coatings and Monolithic Ceramics Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart) III-92

Table 92: Spanish 15-Year Perspective for Advanced Ceramics by Product Segment - Percentage Breakdown of Value Sales for Matrix Composites, Coatings and Monolithic Ceramics Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart) III-93

Table 93: Spanish Recent Past, Current & Future Analysis for Advanced Ceramics by End-use Sector - Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart) III-94

Table 94: Spanish Historic Review for Advanced Ceramics by End-use Sector - Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart) III-95

Table 95: Spanish 15-Year Perspective for Advanced Ceramics by End-use Sector - Percentage Breakdown of Value Sales for Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart) III-96

#### 4f. RUSSIA III-97

A. Market Analysis III-97

Current & Future Analysis III-97

B. Market Analytics III-98

Table 96: Russian Recent Past, Current & Future Analysis for Advanced Ceramics by Product Segment - Matrix Composites, Coatings and Monolithic Ceramics Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart) III-98

Table 97: Russian Historic Review for Advanced Ceramics by Product Segment - Matrix Composites, Coatings and Monolithic Ceramics Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart) III-99

Table 98: Russian 15-Year Perspective for Advanced Ceramics by Product Segment - Percentage Breakdown of Value Sales for Matrix Composites, Coatings and Monolithic Ceramics Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart) III-100

Table 99: Russian Recent Past, Current & Future Analysis for Advanced Ceramics by End-use Sector - Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart) III-101

Table 100: Russian Historic Review for Advanced Ceramics by

End-use Sector - Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart) III-102

Table 101: Russian 15-Year Perspective for Advanced Ceramics by End-use Sector - Percentage Breakdown of Value Sales for Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart) III-103

4g. REST OF EUROPE	III-104
A. Market Analysis	III-104
Current & Future Analysis	III-104
Recent Industry Activity	III-104
B. Market Analytics	III-105
Table 102: Rest of Europe Recent Past, Current & Future Analysis for Advanced Ceramics by Product Segment - Matrix Composites, Coatings and Monolithic Ceramics Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart)	III-105
Table 103: Rest of Europe Historic Review for Advanced Ceramics by Product Segment - Matrix Composites, Coatings and Monolithic Ceramics Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart)	III-106
Table 104: Rest of Europe 15-Year Perspective for Advanced Ceramics by Product Segment - Percentage Breakdown of Value Sales for Matrix Composites, Coatings and Monolithic Ceramics Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart)	III-107
Table 105: Rest of Europe Recent Past, Current & Future Analysis for Advanced Ceramics by End-use Sector - Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart)	III-108
Table 106: Rest of Europe Historic Review for Advanced Ceramics by End-use Sector - Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart)	III-109
Table 107: Rest of Europe 15-Year Perspective for Advanced Ceramics by End-use Sector - Percentage Breakdown of Value Sales for Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart)	III-110
5. ASIA-PACIFIC	III-111
A. Market Analysis	III-111
Current & Future Analysis	III-111
Select Regional Analysis	III-111
China	III-111
Favorable Economic Environment and Rapid Industrialization to Drive Growth	III-111
Power, Petrochemical and Metallurgy Drive Bulk of Market Demand	III-112
Structure of the Chinese Ceramics Market	III-112



India	III-113	
The Indian Market Focuses on Export-Led Growth Strategy		III-113
The State of Rajasthan Exercising Dominance		III-113
LNG for the Energy Guzzling Industry	III-113	
Structure of the Indian Ceramic Industry	III-114	
South Korea	III-114	
South Korean Advanced Ceramics Market - A Sneak Peek		III-114
Technological/Product Innovations/Introductions	III-114	
Key Players	III-115	
B. Market Analytics	III-116	
Table 108: Asia-Pacific Recent Past, Current & Future Analysis for Advanced Ceramics by Product Segment - Matrix Composites, Coatings and Monolithic Ceramics Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart)		III-116
Table 109: Asia-Pacific Historic Review for Advanced Ceramics by Product Segment - Matrix Composites, Coatings and Monolithic Ceramics Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart)		III-117
Table 110: Asia-Pacific 15-Year Perspective for Advanced Ceramics by Product Segment - Percentage Breakdown of Value Sales for Matrix Composites, Coatings and Monolithic Ceramics Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart)		III-118
Table 111: Asia-Pacific Recent Past, Current & Future Analysis for Advanced Ceramics by End-use Sector - Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart)		III-119
Table 112: Asia-Pacific Historic Review for Advanced Ceramics by End-use Sector - Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart)		III-120
Table 113: Asia-Pacific 15-Year Perspective for Advanced Ceramics by End-use Sector - Percentage Breakdown of Value Sales for Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart)		III-121
6. THE MIDDLE EAST	III-122	
A. Market Analysis	III-122	
Current & Future Analysis	III-122	
Recent Industry Activity	III-122	
B. Market Analytics	III-123	
Table 114: Middle East Recent Past, Current & Future Analysis for Advanced Ceramics by Product Segment - Matrix Composites, Coatings and Monolithic Ceramics Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart)		III-123
Table 115: Middle East Historic Review for Advanced Ceramics by Product Segment - Matrix Composites, Coatings and Monolithic Ceramics Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart)		III-124

Table 116: Middle East 15-Year Perspective for Advanced Ceramics by Product Segment - Percentage Breakdown of Value Sales for Matrix Composites, Coatings and Monolithic Ceramics Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart) III-125

Table 117: Middle East Recent Past, Current & Future Analysis for Advanced Ceramics by Product End-use Sector - Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart) III-126

Table 118: Middle East Historic Review for Advanced Ceramics by End-use Sector - Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart) III-127

Table 119: Middle East 15-Year Perspective for Advanced Ceramics by End-use Sector - Percentage Breakdown of Value Sales for Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart) III-128

- 7. LATIN AMERICA III-129
  - A. Market Analysis III-129
    - Current & Future Analysis III-129
  - B. Market Analytics III-130
    - Table 120: Latin American Recent Past, Current & Future Analysis for Advanced Ceramics by Product Segment - Matrix Composites, Coatings and Monolithic Ceramics Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart) III-130
    - Table 121: Latin American Historic Review for Advanced Ceramics by Product Segment - Matrix Composites, Coatings and Monolithic Ceramics Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart) III-131
    - Table 122: Latin American 15-Year Perspective for Advanced Ceramics by Product Segment - Percentage Breakdown of Value Sales for Matrix Composites, Coatings and Monolithic Ceramics Markets for Years 2004, 2011 & 2018 (includes corresponding Graph/Chart) III-132
    - Table 123: Latin American Recent Past, Current & Future Analysis for Advanced Ceramics by End-use Sector - Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2010 through 2018 (includes corresponding Graph/Chart) III-133
    - Table 124: Latin American Historic Review for Advanced Ceramics by End-use Sector - Chemical, Electrical, Electronic, Machinery, Transportation and Others Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2004 through 2009 (includes corresponding Graph/Chart) III-134
    - Table 125: Latin American 15-Year Perspective for Advanced Ceramics by End-use Sector - Percentage Breakdown of Value

## IV. COMPETITIVE LANDSCAPE

Total Companies Profiled: 148 (including Divisions/Subsidiaries - 190)

The United States (85)  
Canada (5)  
Japan (14 )  
Europe (64)  
- France (6)  
- Germany (25)  
- The United Kingdom (17)  
- Italy (1)  
- Spain (1)  
- Rest of Europe (14)  
Asia-Pacific (Excluding Japan) (20)  
Latin America (1)  
Middle-East (1)

Ordering: Order Online - <http://www.researchandmarkets.com/reports/2239102/>

Order by Fax - using the form below

Order by Post - print the order form below and send to

Research and Markets,  
Guinness Centre,  
Taylors Lane,  
Dublin 8,  
Ireland.

---

## Fax Order Form

To place an order via fax simply print this form, fill in the information below and fax the completed form to 646-607-1907 (from USA) or +353-1-481-1716 (from Rest of World). If you have any questions please visit

<http://www.researchandmarkets.com/contact/>

## Order Information

Please verify that the product information is correct.

Product Name: Advanced Ceramics - Global Strategic Business Report  
Web Address: <http://www.researchandmarkets.com/reports/2239102/>  
Office Code: OC8DIRPTQTROSQ

## Product Format

Please select the product format and quantity you require:

**Quantity**  
Electronic (PDF) -  €4,381  
Single User:

## Contact Information

Please enter all the information below in **BLOCK CAPITALS**

Title: Mr  Mrs  Dr  Miss  Ms  Prof

First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_

Email Address: \* \_\_\_\_\_

Job Title: \_\_\_\_\_

Organisation: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

Postal / Zip Code: \_\_\_\_\_

Country: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Fax Number: \_\_\_\_\_

\* Please refrain from using free email accounts when ordering (e.g. Yahoo, Hotmail, AOL)

**Payment Information**

Please indicate the payment method you would like to use by selecting the appropriate box.

- Pay by credit card:
  - American Express
  - Diners Club
  - Master Card
  - Visa

Cardholder's Name \_\_\_\_\_

Cardholder's Signature \_\_\_\_\_

Expiry Date \_\_\_\_\_ | \_\_\_\_\_

Card Number \_\_\_\_\_

CVV Number \_\_\_\_\_

Issue Date \_\_\_\_\_ | \_\_\_\_\_

(for Diners Club only)

- Pay by check:

Please post the check, accompanied by this form, to:

Research and Markets,  
Guinness Center,  
Taylors Lane,  
Dublin 8,  
Ireland.

- Pay by wire transfer:

Please transfer funds to:

Account number	833 130 83
Sort code	98-53-30
Swift code	ULSBIE2D
IBAN number	IE78ULSB98533083313083
Bank Address	Ulster Bank, 27-35 Main Street, Blackrock, Co. Dublin, Ireland.

If you have a Marketing Code please enter it below:

Marketing Code: \_\_\_\_\_

Please note that by ordering from Research and Markets you are agreeing to our Terms and Conditions at <http://www.researchandmarkets.com/info/terms.asp>

**Please fax this form to:**  
**(646) 607-1907 or (646) 964-6609 - From USA**  
**+353-1-481-1716 or +353-1-653-1571 - From Rest of World**