Titanium Dioxide (TiO2) - A Global Market Overview

Description:
Stringent automobile emission control norms worldwide and concerns regarding fuel efficiency have compelled manufacturers to take measures for reducing vehicle weight considerably, thereby propelling demand for lightweight vehicles. One method of reducing vehicle weight is incorporating polycarbonates as replacement for part of the steel structures used in auto manufacturing.

However, polycarbonates suffer from some drawbacks, such as low scratch resistance, which brings titanium dioxide into play. This material is used for coating polycarbonate structures that are further utilized in the auto manufacturing process.

Using polycarbonates enables in reducing the weight of a vehicle and consequently enhancing fuel efficiency. Other applications of titanium dioxide in plastics include improving color, strength and opacity.

An expansion being witnessed in the construction industry constitutes a major factor that is bolstering demand for titanium dioxide. The use of this material in paints and coatings, its largest application area, is being supported by a simultaneous surge in construction activity, which has been more evident in the developing economies of Asia-Pacific and South America.

China leads the global demand for titanium dioxide in the construction sector, with other regions, such as India, Southeast Asia, Brazil and Mexico not far behind.

On a negative note, strict environmental regulations constitute a detrimental factor that restrains demand for titanium dioxide. The process of producing this material causes a number of harmful solid and acid wastes to be produced and several regulations are now in place, more so in developed regions, for controlling the emission and disposal of these wastes.

Among the two processes used for manufacturing titanium dioxide, the sulfate process, predominantly used in China, leads to large amounts of solid waste being produced. This has led Chinese manufacturers to change tack and implement a slew of alternatives aimed at lowering the pollution caused by production of titanium dioxide.

Worldwide market for Titanium Dioxide applications analyzed in this study include Architectural Paints & Coatings, Industrial Paints & Coatings, Paper, Plastics and Other Applications.

The global markets for the above mentioned applications are analyzed in terms of both in metric tons and USD. Global volume consumption of Titanium Dioxide is projected to reach 7.8 million metric tons by 2022 from a forecast 6.1 million metric tons in 2016 at a CAGR of 4.1% between 2016 and 2022.

This report reviews, analyses and projects the Titanium Dioxide market for the period 2012-2022 globally and the regional markets including North America, Europe, Asia-Pacific, South America and Rest of World.

The regional markets further analyzed for 14 independent countries across North America - The United States, Canada and Mexico; Europe - France, Germany, Italy, Spain and the United Kingdom; Asia-Pacific - China, India, Japan and South Korea; South America - Argentina and Brazil.

This 322 page global market research report includes 242 charts (includes a data table and graphical representation for each chart), supported with meaningful and easy to understand graphical presentation, of market numbers.

This report profiles 10 key global players and 30 major players across North America - 6; Europe - 3; Asia-Pacific - 20; and Rest of World - 1. The research also provides the listing of the companies engaged in manufacturing and supply of titanium dioxide. The global list of companies covers the address, contact numbers and the website addresses of 100 companies.

Contents: Part A: Global Market Perspective
1. Introduction
1.1 Product Outline
1.1.1 Origin, Deposits and Resources of Titanium Minerals
1.1.1.1 Titanium Resources
1.1.1.2 Principal Mineral Deposits of Titanium
1.1.2 Titanium Ores
1.1.2.1 Classification
1.1.2.2 Purification
1.1.2.2.1 Upgradation of Ilmenite to Slag and UGS
1.1.2.2.2 Beneficiation of Ilmenite to Synthetic Rutile
1.1.2.2.2.1 Becher Process
1.1.2.2.2.2 Benilite Process
1.1.3 Production of Titanium Dioxide Pigments
1.1.3.1 Sulfate Process
1.1.3.2 Chloride Process
1.1.3.3 Argex Technology (AT) Process
1.1.3.3.1 Beneficial Properties of the AT Process
1.1.3.4 Comparison Between the Three Processes
1.1.4 Properties of Titanium Dioxide
1.1.5 Applications of Titanium Dioxide
1.1.5.1 Paints and Coatings
1.1.5.2 Paper
1.1.5.3 Plastics
1.1.5.4 Other Applications
1.1.5.4.1 Printing Inks
1.1.5.4.2 Cosmetics and Pharmaceuticals
1.1.5.4.3 Textiles
1.1.5.4.4 Food Industry
1.1.5.4.5 Titanium Dioxide Nanomaterials
1.2 Application Analysis - A Global Snapshot
1.2.1 Architectural Paints & Coatings
1.2.2 Industrial Paints & Coatings
1.2.3 Paper
1.2.4 Plastics
1.2.5 Other Applications

2. Key Market Trends
2.1 Titanium Dioxide-Based Flat Lens Offers Promise to Revolutionize Optical Technology
2.2 TiO2 Photocatalyst Used in Advanced Single Step Process for Obtaining Liquid Hydrocarbon Fuel from CO2 and Water
2.3 Two-Minute Rechargeable and Two-Decade Life Batteries with Titanium Dioxide Anodes
2.4 Multi-Purpose TiO2 for Multiple Purposes
2.5 Major Role for Black Titanium Dioxide Nanoparticles in Clean Energy Photocatalysis
2.6 Controlling Crystalline Structure of Titanium Dioxide through a Novel Technique

3. Key Global Players
- CNNC Hua Yuan Titanium Dioxide Co., Ltd. (China)
- Evonik Industries AG (Germany)
- Guangdong Huiyuan Titanium Industry Corporation Limited (China)
- Henan Billions Chemicals Co., Ltd. (China)
- Huntsman International LLC (United States)
- Jiangsu Taibai Group Co., Ltd. (China)
- Kronos Worldwide, Inc. (United States)
- The Chemours Company (United States)
- The National Titanium Dioxide Company Limited (Cristal) (Saudi Arabia)
- Tronox Limited (United States)

4. Key Business & Product Trends
- Launch of Cristal's New Sulfate Rutile TiO2 Product, TiONA® 242
- Rise in the Prices of All CristalACTiV™ Ultrafine TiO2 Products
- Kronos to Raise Global Prices of all its Titanium Dioxide Products
- Use of Henan Billions' Chloride-based TiO2 in Producing PPG Coatings
- Closing of Chemours' Edge Moor TiO2 Production Unit
- Chemours, the Spin-off of DuPont's Performance Chemicals Segment
- China's TiO2 Market to Transform with the Unification of Henan Billions and Lomon
- Argex and PVS to Form Iron By-Products Distribution Pact
- Rise in the Prices of All Ti-Pure™ TiO2 Grades by DuPont
- VP NKT 65, Evonik's New Developmental TiO2 Grade
- VV Titanium Pigments to Invest Rs. 100 Crore in a New Coated Rutile Facility
- DuPont Titanium Technologies to Broaden its High-Efficiency, Low-Cost TiO2 Plant in Mexico
- Launch of Ti-Pure One Coat™ by DuPont Titanium Technologies
- Huntsman Acquires Rockwood's TiO2 Pigments Business
- Establishment of Argex's First Industrial Scale TiO2 Manufacturing Plant and a Complete R&D Centre in Valleyfield
- Argex Mining Inc. Renamed as Argex Titanium Inc.
- Price of Titanium Dioxide Hiked by Evonik Industries AG
- Argex to Enhance PPG TiO2 Technology

5. Global Market Overview
5.1 Global Titanium Dioxide Volume Market Overview by Application
5.1.1 Titanium Dioxide Application Volume Market Overview by Global Region
5.1.1.1 Architectural Paints & Coatings
5.1.1.2 Industrial Paints & Coatings
5.1.1.3 Paper
5.1.1.4 Plastics
5.1.1.5 Other Applications
5.2 Global Titanium Dioxide Value Market Overview by Application
5.2.1 Titanium Dioxide Application Value Market Overview by Global Region
5.2.1.1 Architectural Paints & Coatings
5.2.1.2 Industrial Paints & Coatings
5.2.1.3 Paper
5.2.1.4 Plastics
5.2.1.5 Other Applications

Part B: Regional Market Perspective
- Global Titanium Dioxide Market Overview by Geographic Region

Regional Market Overview

1. North America
1.1 North American Titanium Dioxide Market Overview by Geographic Region
1.2 North American Titanium Dioxide Volume Market Overview by Application
1.2.1 Titanium Dioxide Application Volume Market Overview by North American Region
1.2.1.1 Architectural Paints & Coatings
1.2.1.2 Industrial Paints & Coatings
1.2.1.3 Paper
1.2.1.4 Plastics
1.2.1.5 Other Applications
1.3 North American Titanium Dioxide Value Market Overview by Application
1.3.1 Titanium Dioxide Application Value Market Overview by North American Region
1.3.1.1 Architectural Paints & Coatings
1.3.1.2 Industrial Paints & Coatings
1.3.1.3 Paper
1.3.1.4 Plastics
1.3.1.5 Other Applications
1.4 Major Market Players
- Argex Titanium Inc. (Canada)
- Huntsman International LLC (United States)
- KRONOS Worldwide, Inc. (United States)
- The Chemours Company (United States)
- The Kish Company, Inc. (United States)
- Tronox Limited (United States)

1.5 North American Titanium Dioxide Market Overview by Country
1.5.1 The United States
2. Europe

2.1 European Titanium Dioxide Market Overview by Geographic Region
2.2 European Titanium Dioxide Volume Market Overview by Application
2.2.1 Titanium Dioxide Application Volume Market Overview by European Region
2.2.1.1 Architectural Paints & Coatings
2.2.1.2 Industrial Paints & Coatings
2.2.1.3 Paper
2.2.1.4 Plastics
2.2.1.5 Other Applications
2.3 European Titanium Dioxide Value Market Overview by Application
2.3.1 Titanium Dioxide Application Value Market Overview by European Region
2.3.1.1 Architectural Paints & Coatings
2.3.1.2 Industrial Paints & Coatings
2.3.1.3 Paper
2.3.1.4 Plastics
2.3.1.5 Other Applications
2.4 Major Market Players
   - Cinkarna, Metalurško Kemicna Industrija Celje, D.D. (Cinkarna Celje D.D.) (Slovenia)
   - Evonik Industries AG (Germany)
   - Grupa Azoty Zaklady Chemiczne "Police" SA (Grupa Azoty Police) (Poland)

2.5 European Titanium Dioxide Market Overview by Country
2.5.1 France
2.5.1.1 Market Overview by Application
2.5.2 Germany
2.5.2.1 Market Overview by Application
2.5.3 Italy
2.5.3.1 Market Overview by Application
2.5.4 Spain
2.5.4.1 Market Overview by Application
2.5.5 The United Kingdom
2.5.5.1 Market Overview by Application
2.5.6 Rest of Europe
2.5.6.1 Market Overview by Application

3. Asia-Pacific

3.1 Asia-Pacific Titanium Dioxide Market Overview by Geographic Region
3.2 Asia-Pacific Titanium Dioxide Volume Market Overview by Application
3.2.1 Titanium Dioxide Application Volume Market Overview by Asia-Pacific Region
3.2.1.1 Architectural Paints & Coatings
3.2.1.2 Industrial Paints & Coatings
3.2.1.3 Paper
3.2.1.4 Plastics
3.2.1.5 Other Applications
3.3 Asia-Pacific Titanium Dioxide Value Market Overview by Application
3.3.1 Titanium Dioxide Application Value Market Overview by Asia-Pacific Region
3.3.1.1 Architectural Paints & Coatings
3.3.1.2 Industrial Paints & Coatings
3.3.1.3 Paper
3.3.1.4 Plastics
3.3.1.5 Other Applications
3.4 Major Market Players
   - Anhui Annada Titanium Industry Co., Ltd. (China)
   - Bluestar New Chemical Materials Co., Ltd. (China)
   - CNNC Hua Yuan Titanium Dioxide Co., Ltd. (China)
   - Cosmo Chemical Co., Ltd. (South Korea)
   - Guangdong Huiyun Titanium Industry Corporation Limited (China)
3.5 Asia-Pacific Titanium Dioxide Market Overview by Country
3.5.1 China
3.5.1.1 Market Overview by Application
3.5.2 India
3.5.2.1 Market Overview by Application
3.5.3 Japan
3.5.3.1 Market Overview by Application
3.5.4 South Korea
3.5.4.1 Market Overview by Application
3.5.5 Rest of Asia-Pacific
3.5.5.1 Market Overview by Application

4. South America
4.1 South American Titanium Dioxide Market Overview by Geographic Region
4.2 South American Titanium Dioxide Volume Market Overview by Application
4.2.1 Titanium Dioxide Application Volume Market Overview by South American Region
4.2.1.1 Architectural Paints & Coatings
4.2.1.2 Industrial Paints & Coatings
4.2.1.3 Paper
4.2.1.4 Plastics
4.2.1.5 Other Applications
4.3 South American Titanium Dioxide Value Market Overview by Application
4.3.1 Titanium Dioxide Application Value Market Overview by South American Region
4.3.1.1 Architectural Paints & Coatings
4.3.1.2 Industrial Paints & Coatings
4.3.1.3 Paper
4.3.1.4 Plastics
4.3.1.5 Other Applications

4.4 South American Titanium Dioxide Market Overview by Country
4.4.1 Argentina
4.4.1.1 Market Overview by Application
4.4.2 Brazil
4.4.2.1 Market Overview by Application
4.4.3 Rest of South America
4.4.3.1 Market Overview by Application

5. Rest Of World
5.1 Market Overview by Application
5.2 The National Titanium Dioxide Company Limited (CRISTAL) (Saudi Arabia) - A Major Player

Part C: Guide To The Industry
1. North America
2. Europe
3. Asia-Pacific
4. South America
5. Rest Of World
Part B: Regional Market Perspective

Regional Market Overview

North America

Chart 37: North American Titanium Dioxide Market Analysis (2012-2022) in Volume (000' Metric Tons) and Value (USD Million)
Chart 38: North American Titanium Dioxide Market Analysis (2012-2022) by Geographic Region - United States, Canada and Mexico in 000' Metric Tons
Chart 39: Glance at 2012, 2017 and 2022 North American Titanium Dioxide Volume Market Share (%) by Geographic Region - United States, Canada and Mexico
Chart 40: North American Titanium Dioxide Market Analysis (2012-2022) by Geographic Region - United States, Canada and Mexico in USD Million
Chart 41: Glance at 2012, 2017 and 2022 North American Titanium Dioxide Value Market Share (%) by Geographic Region - United States, Canada and Mexico

Chart 45: Glance at 2012, 2017 and 2022 North American Titanium Dioxide Volume Market Share (%) in Architectural Paints & Coatings Applications by Geographic Region - United States, Canada and Mexico
Chart 47: Glance at 2012, 2017 and 2022 North American Titanium Dioxide Volume Market Share (%) in Industrial Paints & Coatings Applications by Geographic Region - United States, Canada and Mexico
Chart 49: Glance at 2012, 2017 and 2022 North American Titanium Dioxide Volume Market Share (%) in Paper Applications by Geographic Region - United States, Canada and Mexico
Chart 50: North American Titanium Dioxide Market Analysis (2012-2022) in Plastics Applications by Geographic Region - United States, Canada and Mexico in Thousand Metric Tons
Chart 51: Glance at 2012, 2017 and 2022 North American Titanium Dioxide Volume Market Share (%) in Plastics Applications by Geographic Region - United States, Canada and Mexico
Chart 52: North American Titanium Dioxide Market Analysis (2012-2022) in Other Applications by Geographic Region - United States, Canada and Mexico in Thousand Metric Tons
Chart 53: Glance at 2012, 2017 and 2022 North American Titanium Dioxide Volume Market Share (%) in Other Applications by Geographic Region - United States, Canada and Mexico
Chart 57: Glance at 2012, 2017 and 2022 North American Titanium Dioxide Value Market Share (%) in Architectural Paints & Coatings Applications by Geographic Region - United States, Canada and Mexico
Chart 58: North American Titanium Dioxide Market Analysis (2012-2022) in Industrial Paints & Coatings Applications by Geographic Region - United States, Canada and Mexico in USD Million
Chart 59: Glance at 2012, 2017 and 2022 North American Titanium Dioxide Value Market Share (%) in Industrial Paints & Coatings Applications by Geographic Region - United States, Canada and Mexico
Chart 60: North American Titanium Dioxide Market Analysis (2012-2022) in Paper Applications by Geographic Region - United States, Canada and Mexico in USD Million
Chart 61: Glance at 2012, 2017 and 2022 North American Titanium Dioxide Value Market Share (%) in Paper Applications by Geographic Region - United States, Canada and Mexico
Chart 62: North American Titanium Dioxide Market Analysis (2012-2022) in Plastics Applications by Geographic Region - United States, Canada and Mexico in USD Million
Chart 63: Glance at 2012, 2017 and 2022 North American Titanium Dioxide Value Market Share (%) in Plastics Applications by Geographic Region - United States, Canada and Mexico
Chart 64: North American Titanium Dioxide Market Analysis (2012-2022) in Other Applications by Geographic Region - United States, Canada and Mexico in USD Million
Chart 65: Glance at 2012, 2017 and 2022 North American Titanium Dioxide Value Market Share (%) in Other Applications by Geographic Region - United States, Canada and Mexico

The United States
Chart 66: United States Titanium Dioxide Market Analysis (2012-2022) in Volume (000' Metric Tons) and Value (USD Million)

Canada
Chart 71: Canadian Titanium Dioxide Market Analysis (2012-2022) in Volume (000' Metric Tons) and Value (USD Million)
Chart 72: Canadian Titanium Dioxide Market Analysis (2012-2022) by Application - Architectural Paints & Coatings, Industrial Paints & Coatings, Paper, Plastics and Other Applications in 000' Metric Tons
Chart 74: Canadian Titanium Dioxide Market Analysis (2012-2022) by Application - Architectural Paints & Coatings, Industrial Paints & Coatings, Paper, Plastics and Other Applications in USD Million

Mexico
Chart 76: Mexican Titanium Dioxide Market Analysis (2012-2022) in Volume (000' Metric Tons) and Value (USD Million)
Chart 77: Mexican Titanium Dioxide Market Analysis (2012-2022) by Application - Architectural Paints & Coatings, Industrial Paints & Coatings, Paper, Plastics and Other Applications in 000' Metric Tons

Europe
Chart 159: Asia-Pacific Titanium Dioxide Market Analysis (2012-2022) in Architectural Paints & Coatings
Applications by Geographic Region - China, India, Japan, South Korea and Rest of Asia-Pacific in USD Million
Chart 160: Glance at 2012, 2017 and 2022 Asia-Pacific Titanium Dioxide Value Market Share (%) in
Architectural Paints & Coatings Applications by Geographic Region - China, India, Japan, South Korea and Rest of Asia-Pacific
Applications by Geographic Region - China, India, Japan, South Korea and Rest of Asia-Pacific in USD Million
Chart 162: Glance at 2012, 2017 and 2022 Asia-Pacific Titanium Dioxide Value Market Share (%) in Industrial
Paints & Coatings Applications by Geographic Region - China, India, Japan, South Korea and Rest of Asia-Pacific
Chart 163: Asia-Pacific Titanium Dioxide Market Analysis (2012-2022) in Paper Applications by Geographic
Region - China, India, Japan, South Korea and Rest of Asia-Pacific in USD Million
Chart 164: Glance at 2012, 2017 and 2022 Asia-Pacific Titanium Dioxide Value Market Share (%) in Paper
Applications by Geographic Region - China, India, Japan, South Korea and Rest of Asia-Pacific
Chart 165: Asia-Pacific Titanium Dioxide Market Analysis (2012-2022) in Plastics Applications by Geographic
Region - China, India, Japan, South Korea and Rest of Asia-Pacific in USD Million
Chart 166: Glance at 2012, 2017 and 2022 Asia-Pacific Titanium Dioxide Value Market Share (%) in Plastics
Applications by Geographic Region - China, India, Japan, South Korea and Rest of Asia-Pacific
Chart 167: Asia-Pacific Titanium Dioxide Market Analysis (2012-2022) in Other Applications by Geographic
Region - China, India, Japan, South Korea and Rest of Asia-Pacific in USD Million
Chart 168: Glance at 2012, 2017 and 2022 Asia-Pacific Titanium Dioxide Value Market Share (%) in Other
Applications by Geographic Region - China, India, Japan, South Korea and Rest of Asia-Pacific

China
Chart 169: Chinese Titanium Dioxide Market Analysis (2012-2022) in Volume (000' Metric Tons) and Value
(USD Million)
Chart 170: Chinese Titanium Dioxide Market Analysis (2012-2022) by Application - Architectural Paints &
Coatings, Industrial Paints & Coatings, Paper, Plastics and Other Applications in 000' Metric Tons
Chart 171: Glance at 2012, 2017 and 2022 Chinese Titanium Dioxide Volume Market Share (%) by Application -
Architectural Paints & Coatings, Industrial Paints & Coatings, Paper, Plastics and Other Applications
Chart 172: Chinese Titanium Dioxide Market Analysis (2012-2022) by Application - Architectural Paints &
Coatings, Industrial Paints & Coatings, Paper, Plastics and Other Applications in USD Million
Chart 173: Glance at 2012, 2017 and 2022 Chinese Titanium Dioxide Value Market Share (%) by Application -
Architectural Paints & Coatings, Industrial Paints & Coatings, Paper, Plastics and Other Applications

India
Chart 174: Indian Titanium Dioxide Market Analysis (2012-2022) in Volume (000' Metric Tons) and Value
(USD Million)
Chart 175: Indian Titanium Dioxide Market Analysis (2012-2022) by Application - Architectural Paints &
Coatings, Industrial Paints & Coatings, Paper, Plastics and Other Applications in 000' Metric Tons
Chart 176: Glance at 2012, 2017 and 2022 Indian Titanium Dioxide Volume Market Share (%) by Application -
Architectural Paints & Coatings, Industrial Paints & Coatings, Paper, Plastics and Other Applications
Chart 177: Indian Titanium Dioxide Market Analysis (2012-2022) by Application - Architectural Paints &
Coatings, Industrial Paints & Coatings, Paper, Plastics and Other Applications in USD Million
Chart 178: Glance at 2012, 2017 and 2022 Indian Titanium Dioxide Value Market Share (%) by Application -
Architectural Paints & Coatings, Industrial Paints & Coatings, Paper, Plastics and Other Applications

Japan
Chart 179: Japanese Titanium Dioxide Market Analysis (2012-2022) in Volume (000' Metric Tons) and Value
(USD Million)
Chart 180: Japanese Titanium Dioxide Market Analysis (2012-2022) by Application - Architectural Paints &
Coatings, Industrial Paints & Coatings, Paper, Plastics and Other Applications in 000' Metric Tons
Chart 181: Glance at 2012, 2017 and 2022 Japanese Titanium Dioxide Volume Market Share (%) by Application -
Architectural Paints & Coatings, Industrial Paints & Coatings, Paper, Plastics and Other Applications
Coatings, Industrial Paints & Coatings, Paper, Plastics and Other Applications in USD Million
Chart 183: Glance at 2012, 2017 and 2022 Japanese Titanium Dioxide Value Market Share (%) by Application -
Architectural Paints & Coatings, Industrial Paints & Coatings, Paper, Plastics and Other Applications

South Korea
Chart 184: South Korean Titanium Dioxide Market Analysis (2012-2022) in Volume (000' Metric Tons) and Value (USD Million)
Paints & Coatings, Industrial Paints & Coatings, Paper, Plastics and Other Applications in USD Million


Chart 213: South American Titanium Dioxide Market Analysis (2012-2022) in Architectural Paints & Coatings Applications by Geographic Region - Argentina, Brazil and Rest of South America in USD Million

Chart 214: Glance at 2012, 2017 and 2022 South American Titanium Dioxide Value Market Share (%) in Architectural Paints & Coatings Applications by Geographic Region - Argentina, Brazil and Rest of South America

Chart 215: South American Titanium Dioxide Market Analysis (2012-2022) in Industrial Paints & Coatings Applications by Geographic Region - Argentina, Brazil and Rest of South America in USD Million

Chart 216: Glance at 2012, 2017 and 2022 South American Titanium Dioxide Value Market Share (%) in Industrial Paints & Coatings Applications by Geographic Region - Argentina, Brazil and Rest of South America

Chart 217: South American Titanium Dioxide Market Analysis (2012-2022) in Paper Applications by Geographic Region - Argentina, Brazil and Rest of South America in USD Million

Chart 218: Glance at 2012, 2017 and 2022 South American Titanium Dioxide Value Market Share (%) in Paper Applications by Geographic Region - Argentina, Brazil and Rest of South America

Chart 219: South American Titanium Dioxide Market Analysis (2012-2022) in Plastics Applications by Geographic Region - Argentina, Brazil and Rest of South America in USD Million

Chart 220: Glance at 2012, 2017 and 2022 South American Titanium Dioxide Value Market Share (%) in Plastics Applications by Geographic Region - Argentina, Brazil and Rest of South America

Chart 221: South American Titanium Dioxide Market Analysis (2012-2022) in Other Applications by Geographic Region - Argentina, Brazil and Rest of South America in USD Million

Chart 222: Glance at 2012, 2017 and 2022 South American Titanium Dioxide Value Market Share (%) in Other Applications by Geographic Region - Argentina, Brazil and Rest of South America

Argentina

Chart 223: Argentine Titanium Dioxide Market Analysis (2012-2022) in Volume (000' Metric Tons) and Value (USD Million)

Chart 224: Argentine Titanium Dioxide Market Analysis (2012-2022) by Application - Architectural Paints & Coatings, Industrial Paints & Coatings, Paper, Plastics and Other Applications in 000' Metric Tons


Brazil

Chart 228: Brazilian Titanium Dioxide Market Analysis (2012-2022) in Volume (000' Metric Tons) and Value (USD Million)

Chart 229: Brazilian Titanium Dioxide Market Analysis (2012-2022) by Application - Architectural Paints & Coatings, Industrial Paints & Coatings, Paper, Plastics and Other Applications in 000' Metric Tons


Rest of South America

Chart 233: Rest of South America Titanium Dioxide Market Analysis (2012-2022) in Volume (000' Metric Tons) and Value (USD Million)

Chart 234: Rest of South America Titanium Dioxide Market Analysis (2012-2022) by Application - Architectural Paints & Coatings, Industrial Paints & Coatings, Paper, Plastics and Other Applications in 000' Metric Tons


Chart 236: Rest of South America Titanium Dioxide Market Analysis (2012-2022) by Application - Architectural Paints & Coatings, Industrial Paints & Coatings, Paper, Plastics and Other Applications in USD Million

Application - Architectural Paints & Coatings, Industrial Paints & Coatings, Paper, Plastics and Other Applications

Rest Of World
Chart 238: Rest of World Titanium Dioxide Market Analysis (2012-2022) in Volume (000' Metric Tons) and Value (USD Million)
Chart 239: Rest of World Titanium Dioxide Market Analysis (2012-2022) by Application - Architectural Paints & Coatings, Industrial Paints & Coatings, Paper, Plastics and Other Applications in 000' Metric Tons

Tables:
Table 1: Properties of Specific Titanium Minerals
Table 2: Comparison Between Sulfate, Chloride and AT Processes
Table 3: Refractive Index, Refractive Tinting Strength and Specific Gravity of Common White Pigments
Table 4: Refractive Indices of Pigments and Vehicles Used in Manufacturing Paints and Coatings
Table 5: Refractive Indices of Commonly Used White Pigments and Polymers

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 and select the format(s) you require.

<table>
<thead>
<tr>
<th>Product Name:</th>
<th>Titanium Dioxide (TiO2) - A Global Market Overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web Address:</td>
<td><a href="http://www.researchandmarkets.com/reports/3801998/">http://www.researchandmarkets.com/reports/3801998/</a></td>
</tr>
<tr>
<td>Office Code:</td>
<td>SCBRFI7</td>
</tr>
</tbody>
</table>

Product Formats
Please select the product formats and quantity you require:

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic (PDF)</td>
<td></td>
</tr>
<tr>
<td>Single User</td>
<td>USD 4050</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Electronic (PDF)</td>
<td></td>
</tr>
<tr>
<td>Enterprise-wide</td>
<td>USD 6750</td>
</tr>
</tbody>
</table>

Contact Information
Please enter all the information below in BLOCK CAPITALS

<table>
<thead>
<tr>
<th>Title:</th>
<th>Mr</th>
<th>Mrs</th>
<th>Dr</th>
<th>Miss</th>
<th>Ms</th>
<th>Prof</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Name:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Last Name:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Email Address:</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Title:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organisation:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Address:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postal / Zip Code:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Country:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phone Number:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fax Number:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* 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: You will receive an email with a link to a secure webpage to enter your credit card details.

☐ 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