

# Advanced Glazing Systems Markets — 2012

<https://marketpublishers.com/r/A8C217E579EEN.html>

Date: October 2012

Pages: 86

Price: US\$ 1,995.00 (Single User License)

ID: A8C217E579EEN

## Abstracts

According to building engineers, backed up by the evidence of infrared photography, the vast majority of energy loss in buildings is through windows. In an era of rising real energy prices and uncertainties about future energy supply NanoMarkets believes that a fast growing market for advanced glazing systems can be expected and that this will create profitable business opportunities for a wide variety of companies. In this new report, NanoMarkets has identified where these opportunities can be found and how much they will be worth. The report covers the full range of high-performance windows systems that provide thermal, visual and IR management using the latest materials:

In this report, firms in the windows/glazing industry will find a comprehensive product roadmap for advanced glazing systems showing how windows products will evolve from the latest generation of highly insulated windows, through the incorporation of various dynamic glass (aka smart windows) technologies, and then on to systems with embedded solar and lighting functionality. Included in the analysis in this report is an examination of some of the high performance insulated windows and dynamic glass windows products that are already on the market

Because of the huge potential addressable market for high-tech windows and the fact that they are likely to use novel materials, this report also includes a comprehensive discussion and forecast of how materials needs will change in the glazing systems market over the next eight years and how materials and chemical firms can benefit from these changes. Among the materials covered will be smart materials, photoactive materials, glasses, plastics, framing materials, sealants, gasses, desiccants, etc.

NanoMarkets also believes that this report will also be of considerable interest to both the solar panel industry and the solid-state lighting industry. Firms active in

these industries will learn from this report how they can tap into the expected rapid growth of advanced glazing systems. In particular, we show how new opportunities will emerge for building-integrated photovoltaics (BIPV) companies and OLED firms to make money by implanting PV and lighting layers into high-performance windows products

This report will also bring considerable insights to corporate planners throughout the building products and construction industries as well as architects and sophisticated investors. As with all NanoMarkets reports, this report contains detailed eight-year forecasts of the markets analyzed in this report in both value (\$ millions) and volume (area) terms. Forecast breakouts are by end-user type, technology, materials used and geography. In addition, the report contains a thorough analysis of the product/market strategies of the leading firms currently active in the advanced glazing space. And both giant firms – such as Alcoa, Saint-Gobain and Bayer – and the latest startups are included in the coverage.

## Contents

### EXECUTIVE SUMMARY

#### E.1 Summary of Key Drivers for Advanced Glazing Systems

##### E.1.1 How New Forces Are Shaping the Advanced Glazing Industry

#### E.2 Product Strategies for Advanced Glazing Systems

##### E.2.1 Highly Insulated IGUs as a Product Strategy: The Next-Generation Double Glazed Window

##### E.2.2 Advanced Glazing Systems as a Product Strategy: Smart Windows/Dynamic Glazing as Advanced Glazing Systems

##### E.2.3 The Coming Together of Advanced Glazing Systems with Solar Panels and Lighting

#### E.3 Firms to Watch in the Advanced Glazing Sector

##### E.3.1 Innovative Firms to Watch

##### E.3.2 Influential Glass Firms and Other Multinationals

#### E.4 Summary of Eight-Year Forecasts

### CHAPTER ONE: INTRODUCTION

#### 1.1 Background to this Report

##### 1.1.1 Why Double Glazing Isn't Boring Anymore

##### 1.1.2 On Demand, Technology and Advanced Glazing Systems

##### 1.1.3 Who Will Profit from Advanced Glazing Systems Market

#### 1.2 Objective and Scope of this Report

#### 1.3 Methodology and Information Sources

#### 1.4 Plan of this Report

### CHAPTER TWO: ADVANCED GLAZING SYSTEM PRODUCTS AND TECHNOLOGIES

#### 2.1 Next-Generation Thermally Insulated Windows

##### 2.1.1 Emerging Opportunities for Next-Generation Insulated Windows Systems in the Context of the Traditional Double Glazing Industry

##### 2.1.2 Possibilities for Supply Chain Innovation for Highly Insulated Advanced Glazing Systems

##### 2.1.3 The 'Death' of Plastics and the Future of Highly-Insulated Advanced Glazing Systems

##### 2.1.4 Trends in Gases in Highly Insulated Windows

- 2.1.5 Specialist Glasses and Coatings
- 2.1.6 Other Possibilities for Innovations in IGUs
- 2.2 Dynamic Glazing Technologies
  - 2.2.1 Drivers for Dynamic Glazing Technologies
  - 2.2.2 Available Technologies for Dynamic Glazing: Passive Technologies
  - 2.2.3 Available Technologies for Dynamic Glazing: Active Technologies
- 2.3 Future Integration Directions for Advanced Glazing Systems
  - 2.3.1 Impact of Building-Integrated Photovoltaics (BIPV) on Smart Glazing Systems
  - 2.3.2 Integrating Smart Lighting into Advanced Glazing Systems
- 2.4 Key Points from this Chapter

## **CHAPTER THREE: MARKETS AND MARKET FORECASTS FOR ADVANCED GLAZING SYSTEMS**

- 3.1 Two Addressable Markets for Advanced Glazing Systems: Conventional Building Markets and Green Buildings
  - 3.1.1 Advanced Glazing Systems in 'Green' and Zero-Energy Buildings
  - 3.1.2 Factors Driving Advanced Glazing Systems in Conventional Building Markets
- 3.2 Forecasting Assumptions Used in this Report
  - 3.2.1 Macroeconomic and Regulatory Assumptions
  - 3.2.2 Sources of Information
  - 3.2.3 Assumptions About Pricing and Units of Measurement
  - 3.2.4 Alternative Scenarios
- 3.3 Eight-Year Forecasts of Advanced Glazing Systems by Technology
  - 3.3.1 Next-Generation Thermally Insulated Windows
  - 3.3.2 Dynamic Glazing Technologies
  - 3.3.3 Multi-Functional Advanced Glazing Systems
- 3.4 Eight-Year Forecasts of Advanced Glazing Systems for Commercial Buildings
  - 3.4.1 Market Factors Shaping the Commercial Building Market for Advanced Glazing Systems
  - 3.4.2 A Note on Market Opportunities for Advanced Glazing Systems for Institutional and Government Buildings
- 3.5 Eight-Year Forecasts of Advanced Glazing Systems for Industrial Buildings
- 3.6 Eight-Year Forecasts of Advanced Glazing Systems for Multi-Tenant Residential Buildings
- 3.7 Eight-Year Forecasts of Advanced Glazing Systems for Single-Family Residential Buildings
- 3.8 Eight-Year Forecasts by Geographical Region
  - 3.8.1 U.S. Market Outlook for Advanced Glazing Systems

- 3.8.2 European Market Outlook for Advanced Glazing Systems
- 3.8.3 Asian Market Outlook for Advanced Glazing Systems
- 3.8.4 Latin America Market Outlook for Advanced Glazing Systems: Brazil in Particular
- 3.9 Summary of Eight-Year Forecasts of Advanced Glazing System Markets
- 3.10 Eight-Year Forecasts of Materials for Advanced Glazing Systems
- 3.11 Key Points from this Chapter
- Acronyms and Abbreviations Used In this Report
- About the Author

## List Of Exhibits

### LIST OF EXHIBITS

- Exhibit E-1: New Forces Shaping the Advanced Glazing Industry
- Exhibit E-2: Product/Market Evolution of the Advanced Glazing Systems and Markets
- Exhibit E-3: Key Players in the Dynamic Glazing Market
- Exhibit E-4: Advanced Glazing Markets by Type of Advanced Glazing Product (\$ Million)
- Exhibit 1-1: Opportunities Available to Major Players in the Advanced Glazing Systems
- Exhibit 2-1: History and Future Evolution of Highly Insulated Windows
- Exhibit 2-2: Likely End-Use Applications by Dynamic Glazing Technology
- Exhibit 2-3: Regional Demand for Dynamic Glazing by Technology
- Exhibit 2-4: Firms Pursuing the Market for Electrochromic Displays in the Advanced Glazing Systems Market
- Exhibit 3-1: Green Building-Related Drivers for Advanced Glazing Markets
- Exhibit 3-2: Total Worldwide Advanced Glazing Purchases for Buildings (Million Square Meters)
- Exhibit 3-3: Total Worldwide Advanced Glazing Purchases for Buildings (\$ Millions)
- Exhibit 3-4: Worldwide Next-Generation IGU Penetration of Market
- Exhibit 3-5: Volume of the Architectural Passive Dynamic Glass Market (Million Square Meters)
- Exhibit 3-6: Value of the Architectural Passive Dynamic Glass Market (\$ Millions)
- Exhibit 3-7: Volume of the Architectural Active Dynamic Glass Market (Million Square Meters)
- Exhibit 3-8: Value of the Architectural Active Dynamic Glass Market (\$ Millions)
- Exhibit 3-9: Volume of Multi-Functional Advanced Glazing Systems Market (Million Square Meters)
- Exhibit 3-10: Value of Multi-Functional Advanced Glazing Systems Market (\$ Millions)
- Exhibit 3-11: Advanced Glazing Purchases by Commercial Buildings (Million Square Meters)
- Exhibit 3-12: Advanced Glazing Purchases by Commercial Buildings (\$ Millions)
- Exhibit 3-13: Shares of Advanced Glazing Technology Purchases Made by Commercial Buildings (Percent of Total Area)
- Exhibit 3-14: Advanced Glazing Purchases by Industrial Buildings (Million Square Meters)
- Exhibit 3-15: Advanced Glazing Purchases by Industrial Buildings (\$ Millions)
- Exhibit 3-16: Shares of Advanced Glazing Technology Purchases Made by Industrial Buildings (Percent)

Exhibit 3-17: Advanced Glazing Purchases by Multi-Tenant Residential Buildings  
(Millions Square Meters)

Exhibit 3-18: Advanced Glazing Purchases by Multi-Tenant Residential Buildings (\$  
Millions)

Exhibit 3-19: Shares of Advanced Glazing Technology Purchases Made by Multi-Tenant  
Residential Buildings (Percent)

Exhibit 3-20: Advanced Glazing Purchases by Single-Family Residential Buildings  
(Millions Square Meters)

Exhibit 3-21: Advanced Glazing Purchases by Single-Family Residential Buildings (\$  
Millions)

Exhibit 3-22: Shares of Advanced Glazing Technology Purchases Made by Single-  
Family Residential Buildings (Percent)

Exhibit 3-23: Advanced Glazing Purchases by Geographical Region (\$Millions)

Exhibit 3-24: Advanced Glazing Purchases by Type of Buildings (Millions of Square  
Meters)

Exhibit 3-25: Advanced Glazing Purchases by Type of Buildings (\$ Millions)(1)

Exhibit 3-26: Advanced Glazing Material Forecast (\$ Millions)

## I would like to order

Product name: Advanced Glazing Systems Markets — 2012

Product link: <https://marketpublishers.com/r/A8C217E579EEN.html>

Price: US\$ 1,995.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/A8C217E579EEN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:  
Last name:  
Email:  
Company:  
Address:  
City:  
Zip code:  
Country:  
Tel:  
Fax:  
Your message:

**\*\*All fields are required**

Customer signature \_\_\_\_\_

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970