

Active Packaging Market Forecasts to 2032 – Global Analysis By Type (Gas Scavenger/Emitter, Antimicrobial Agent, Time-Temperature Indicators (TTIs), Shelf-Life Sensors, Microwave Susceptor, Moisture Absorber/Scavenger and Other Types), Function (Shelf-Life Extension, Anti-counterfeiting & Authentication, Product Integrity Monitoring, Traceability & Supply Chain Visibility and Other Functions), Material, Class, Application and By Geography

<https://marketpublishers.com/r/A7A111ABD2F4EN.html>

Date: September 2025

Pages: 200

Price: US\$ 4,150.00 (Single User License)

ID: A7A111ABD2F4EN

Abstracts

According to Statistics MRC, the Global Active Packaging Market is accounted for \$6.7 billion in 2025 and is expected to reach \$10.2 billion by 2032 growing at a CAGR of 6.1% during the forecast period. Active packaging is a type of packaging system designed to interact with the product or its environment to extend shelf life, maintain quality, or enhance safety. Unlike traditional packaging, it incorporates components that actively control moisture, oxygen, or microbial growth. These systems may include oxygen scavengers, antimicrobial agents, or moisture absorbers, tailored to specific product needs. Active packaging plays a crucial role in modern food preservation, pharmaceutical stability, and overall product integrity throughout distribution and storage.

Market Dynamics:

Driver:

Growing consumer demand for fresh and safe products

Consumers are more conscious about food safety, shelf life, and nutritional integrity, prompting manufacturers to adopt packaging solutions that actively preserve product quality. Technologies such as oxygen scavengers, antimicrobial agents, and moisture absorbers are being integrated to inhibit spoilage and microbial growth. Additionally, the rise of e-commerce and global food distribution has intensified the need for packaging that ensures safety during transit. This shift in consumer behavior is compelling brands to invest in advanced packaging systems that maintain freshness and reduce food waste.

Restraint:

High cost of implementation

Despite its benefits, active packaging involves substantial upfront investment in specialized materials and equipment. The incorporation of functional additives, sensors, and multilayer films increases production complexity and cost. Small and medium-sized enterprises often struggle to adopt these technologies due to budget constraints and limited access to high-end manufacturing capabilities. Moreover, regulatory compliance and testing requirements for active compounds add to the financial burden.

Opportunity:

Development of sustainable and bio-based materials

Companies are exploring bio-based polymers, compostable films, and recyclable structures that offer both functionality and environmental benefits. Emerging materials such as polylactic acid (PLA), cellulose-based films, and starch derivatives are gaining traction for their biodegradability and compatibility with active agents. Regulatory support and consumer demand for eco-friendly packaging are accelerating R&D efforts in this space. As a result, manufacturers are increasingly aligning their packaging strategies with circular economy principles.

Threat:

Potential for migration of active compounds

Ensuring that active agents remain within safe limits requires rigorous testing and validation, especially for food and pharmaceutical applications. Variability in storage conditions, product composition, and packaging materials can influence migration behavior, complicating quality control. This issue may lead to product recalls, reputational damage, and stricter oversight, thereby hindering market growth if not properly addressed.

Covid-19 Impact:

The COVID-19 pandemic had a dual impact on the active packaging market. On one hand, disruptions in global supply chains and manufacturing operations led to temporary setbacks in production and distribution. On the other hand, heightened awareness around hygiene, shelf life, and food safety drove demand for packaging solutions that could offer enhanced protection. The pharmaceutical sector, in particular, witnessed increased adoption of active packaging for vaccines and medications. Additionally, the surge in online grocery shopping and food delivery services created new opportunities for smart and active packaging formats that ensure product integrity during transit.

The gas scavenger/emitter segment is expected to be the largest during the forecast period

The gas scavenger/emitter segment is expected to account for the largest market share during the forecast period due to its widespread application in preserving perishable goods. These technologies effectively regulate oxygen, ethylene, and carbon dioxide levels within packaging environments, thereby extending shelf life and maintaining product quality. Their use spans across food, pharmaceuticals, and electronics, where atmospheric control is critical. Continuous innovation in scavenger formulations and integration with smart packaging systems is further enhancing their performance and market appeal.

The traceability & supply chain visibility segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the traceability & supply chain visibility segment is predicted to witness the highest growth rate driven by the increasing need for transparency and real-time monitoring. Intelligent packaging solutions equipped with RFID tags, QR codes, and sensors are enabling manufacturers and retailers to track product movement, verify authenticity, and manage inventory efficiently. The integration of blockchain and cloud-based analytics is also transforming supply chain operations, making this segment a

hotbed for innovation.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share owing to advanced manufacturing infrastructure and strong regulatory frameworks. The region's robust food and pharmaceutical industries are early adopters of active packaging technologies, with companies investing heavily in R&D and automation. Consumer demand for premium, safe, and sustainable products is also driving innovation. Moreover, strategic partnerships between packaging firms and tech companies are fostering the development of intelligent packaging systems tailored to regional needs.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR fueled by rapid urbanization, expanding middle-class populations, and rising demand for packaged goods. Countries like China, India, and Japan are witnessing a surge in food processing and pharmaceutical manufacturing, creating fertile ground for active packaging adoption. Additionally, the region's growing e-commerce sector is amplifying the need for packaging that ensures product integrity and traceability across complex logistics networks.

Key players in the market

Some of the key players in Active Packaging Market include Amcor plc, Sealed Air Corporation, Avery Dennison Corporation, Ball Corporation, Crown Holdings Inc., BASF SE, AptarGroup, Inc., Graphic Packaging International LLC, Mitsubishi Gas Chemical Co., Huhtamäki Oyj, WestRock Company, Dessicare Inc., Multisorb Technologies, DuPont, StePac, Mondi, International Paper, Berry Global Inc., MicrobeGuard Corporation and Cilicant Private Limited.

Key Developments:

In August 2025, Graphic Packaging added PaperSeal® Pressed MAP trays to its sustainable food packaging portfolio. The trays offer extended shelf life and reduce plastic use for chilled foods.

In July 2025, Aptar Pharma acquired Mod3 Pharma's clinical trial materials

manufacturing assets to expand Phase 1 and 2 drug delivery services. This strengthens Aptar's nasal and inhalation drug platforms and accelerates early-stage innovation.

In July 2025, Huhtamaki introduced compostable and recyclable ice cream cups made from bio-based coated paperboard. These cups meet home and industrial composting standards and reduce fossil plastic use.

Types Covered:

Gas Scavenger/Emitter

Antimicrobial Agent

Time-Temperature Indicators (TTIs)

Shelf-Life Sensors

Microwave Susceptor

Moisture Absorber/Scavenger

Other Types

Functions Covered:

Shelf-Life Extension

Anti-counterfeiting & Authentication

Product Integrity Monitoring

Traceability & Supply Chain Visibility

Other Functions

Materials Covered:

Plastics

Paper & Paperboard

Glass

Metal

Biopolymers/Bio-based Materials

Films & Coatings

Other Materials

Applications Covered:

Food & Beverage

Healthcare & Pharmaceuticals

Personal Care & Cosmetics

Industrial & Electronics Packaging

Agriculture

Automotive

Shipping & Logistics

Other Applications

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

What our report offers:

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2024, 2025, 2026, 2028, and 2032
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

Contents

1 EXECUTIVE SUMMARY

2 PREFACE

- 2.1 Abstract
- 2.2 Stake Holders
- 2.3 Research Scope
- 2.4 Research Methodology
 - 2.4.1 Data Mining
 - 2.4.2 Data Analysis
 - 2.4.3 Data Validation
 - 2.4.4 Research Approach
- 2.5 Research Sources
 - 2.5.1 Primary Research Sources
 - 2.5.2 Secondary Research Sources
 - 2.5.3 Assumptions

3 MARKET TREND ANALYSIS

- 3.1 Introduction
- 3.2 Drivers
- 3.3 Restraints
- 3.4 Opportunities
- 3.5 Threats
- 3.6 Application Analysis
- 3.7 Emerging Markets
- 3.8 Impact of Covid-19

4 PORTERS FIVE FORCE ANALYSIS

- 4.1 Bargaining power of suppliers
- 4.2 Bargaining power of buyers
- 4.3 Threat of substitutes
- 4.4 Threat of new entrants
- 4.5 Competitive rivalry

5 GLOBAL ACTIVE PACKAGING MARKET, BY TYPE

- 5.1 Introduction
- 5.2 Gas Scavenger/Emitter
 - 5.2.1 Oxygen Scavengers
 - 5.2.2 Ethylene Scavengers
 - 5.2.3 Carbon Dioxide Scavengers
- 5.3 Antimicrobial Agent
- 5.4 Time-Temperature Indicators (TTIs)
- 5.5 Shelf-Life Sensors
- 5.6 Microwave Susceptor
- 5.7 Moisture Absorber/Scavenger
- 5.8 Other Types

6 GLOBAL ACTIVE PACKAGING MARKET, BY FUNCTION

- 6.1 Introduction
- 6.2 Shelf-Life Extension
- 6.3 Anti-counterfeiting & Authentication
- 6.4 Product Integrity Monitoring
- 6.5 Traceability & Supply Chain Visibility
- 6.6 Other Functions

7 GLOBAL ACTIVE PACKAGING MARKET, BY MATERIAL

- 7.1 Introduction
- 7.2 Plastics
- 7.3 Paper & Paperboard
- 7.4 Glass
- 7.5 Metal
- 7.6 Biopolymers/Bio-based Materials
- 7.7 Films & Coatings
- 7.8 Other Materials

8 GLOBAL ACTIVE PACKAGING MARKET, BY APPLICATION

- 8.1 Introduction
- 8.2 Food & Beverage
- 8.3 Healthcare & Pharmaceuticals
- 8.4 Personal Care & Cosmetics

8.5 Industrial & Electronics Packaging

8.6 Agriculture

8.7 Automotive

8.8 Shipping & Logistics

8.9 Other Applications

9 GLOBAL ACTIVE PACKAGING MARKET, BY GEOGRAPHY

9.1 Introduction

9.2 North America

9.2.1 US

9.2.2 Canada

9.2.3 Mexico

9.3 Europe

9.3.1 Germany

9.3.2 UK

9.3.3 Italy

9.3.4 France

9.3.5 Spain

9.3.6 Rest of Europe

9.4 Asia Pacific

9.4.1 Japan

9.4.2 China

9.4.3 India

9.4.4 Australia

9.4.5 New Zealand

9.4.6 South Korea

9.4.7 Rest of Asia Pacific

9.5 South America

9.5.1 Argentina

9.5.2 Brazil

9.5.3 Chile

9.5.4 Rest of South America

9.6 Middle East & Africa

9.6.1 Saudi Arabia

9.6.2 UAE

9.6.3 Qatar

9.6.4 South Africa

9.6.5 Rest of Middle East & Africa

10 KEY DEVELOPMENTS

- 10.1 Agreements, Partnerships, Collaborations and Joint Ventures
- 10.2 Acquisitions & Mergers
- 10.3 New Product Launch
- 10.4 Expansions
- 10.5 Other Key Strategies

11 COMPANY PROFILING

- 11.1 Amcor plc
- 11.2 Sealed Air Corporation
- 11.3 Avery Dennison Corporation
- 11.4 Ball Corporation
- 11.5 Crown Holdings Inc.
- 11.6 BASF SE
- 11.7 AptarGroup, Inc.
- 11.8 Graphic Packaging International LLC
- 11.9 Mitsubishi Gas Chemical Co.
- 11.10 Huhtam?ki Oyj
- 11.11 WestRock Company
- 11.12 Dessicare Inc.
- 11.13 Multisorb Technologies
- 11.14 DuPont
- 11.15 StePac
- 11.16 Mondi
- 11.17 International Paper
- 11.18 Berry Global Inc.
- 11.19 MicrobeGuard Corporation
- 11.20 Cilicant Private Limited

List Of Tables

LIST OF TABLES

Table 1 Global Active Packaging Market Outlook, By Region (2024-2032) (\$MN)

Table 2 Global Active Packaging Market Outlook, By Type (2024-2032) (\$MN)

Table 3 Global Active Packaging Market Outlook, By Gas Scavenger/Emitter (2024-2032) (\$MN)

Table 4 Global Active Packaging Market Outlook, By Oxygen Scavengers (2024-2032) (\$MN)

Table 5 Global Active Packaging Market Outlook, By Ethylene Scavengers (2024-2032) (\$MN)

Table 6 Global Active Packaging Market Outlook, By Carbon Dioxide Scavengers (2024-2032) (\$MN)

Table 7 Global Active Packaging Market Outlook, By Antimicrobial Agent (2024-2032) (\$MN)

Table 8 Global Active Packaging Market Outlook, By Time-Temperature Indicators (TTIs) (2024-2032) (\$MN)

Table 9 Global Active Packaging Market Outlook, By Shelf-Life Sensors (2024-2032) (\$MN)

Table 10 Global Active Packaging Market Outlook, By Microwave Susceptor (2024-2032) (\$MN)

Table 11 Global Active Packaging Market Outlook, By Moisture Absorber/Scavenger (2024-2032) (\$MN)

Table 12 Global Active Packaging Market Outlook, By Other Types (2024-2032) (\$MN)

Table 13 Global Active Packaging Market Outlook, By Function (2024-2032) (\$MN)

Table 14 Global Active Packaging Market Outlook, By Shelf-Life Extension (2024-2032) (\$MN)

Table 15 Global Active Packaging Market Outlook, By Anti-counterfeiting & Authentication (2024-2032) (\$MN)

Table 16 Global Active Packaging Market Outlook, By Product Integrity Monitoring (2024-2032) (\$MN)

Table 17 Global Active Packaging Market Outlook, By Traceability & Supply Chain Visibility (2024-2032) (\$MN)

Table 18 Global Active Packaging Market Outlook, By Other Functions (2024-2032) (\$MN)

Table 19 Global Active Packaging Market Outlook, By Material (2024-2032) (\$MN)

Table 20 Global Active Packaging Market Outlook, By Plastics (2024-2032) (\$MN)

Table 21 Global Active Packaging Market Outlook, By Paper & Paperboard (2024-2032)

(\$MN)

Table 22 Global Active Packaging Market Outlook, By Glass (2024-2032) (\$MN)

Table 23 Global Active Packaging Market Outlook, By Metal (2024-2032) (\$MN)

Table 24 Global Active Packaging Market Outlook, By Biopolymers/Bio-based Materials (2024-2032) (\$MN)

Table 25 Global Active Packaging Market Outlook, By Films & Coatings (2024-2032) (\$MN)

Table 26 Global Active Packaging Market Outlook, By Other Materials (2024-2032) (\$MN)

Table 27 Global Active Packaging Market Outlook, By Application (2024-2032) (\$MN)

Table 28 Global Active Packaging Market Outlook, By Food & Beverage (2024-2032) (\$MN)

Table 29 Global Active Packaging Market Outlook, By Healthcare & Pharmaceuticals (2024-2032) (\$MN)

Table 30 Global Active Packaging Market Outlook, By Personal Care & Cosmetics (2024-2032) (\$MN)

Table 31 Global Active Packaging Market Outlook, By Industrial & Electronics Packaging (2024-2032) (\$MN)

Table 32 Global Active Packaging Market Outlook, By Agriculture (2024-2032) (\$MN)

Table 33 Global Active Packaging Market Outlook, By Automotive (2024-2032) (\$MN)

Table 34 Global Active Packaging Market Outlook, By Shipping & Logistics (2024-2032) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Middle East & Africa Regions are also represented in the same manner as above.

I would like to order

Product name: Active Packaging Market Forecasts to 2032 – Global Analysis By Type (Gas Scavenger/Emitter, Antimicrobial Agent, Time-Temperature Indicators (TTIs), Shelf-Life Sensors, Microwave Susceptor, Moisture Absorber/Scavenger and Other Types), Function (Shelf-Life Extension, Anti-counterfeiting & Authentication, Product Integrity Monitoring, Traceability & Supply Chain Visibility and Other Functions), Material, Class, Application and By Geography

Product link: <https://marketpublishers.com/r/A7A111ABD2F4EN.html>

Price: US\$ 4,150.00 (Single User License / Electronic Delivery)

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

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/A7A111ABD2F4EN.html>