



Barrier Materials for Rigid Packaging to 2021

Global Markets, Economics, and Technology

“The Companion Study to our “Barrier Materials for Flexible Packaging” Study.

“Barrier Materials for Rigid Packaging 2017 to 2021” focuses on seven categories of raw materials that provide oxygen transmission rates from zero to 77.5 cc/m²/day (5 cc/100in²/day). This is the same target used for our **“Barrier Materials for Flexible Packaging”** companion study. The study examines a comprehensive range of technologies, each with its optimal applications, market potential, economic profile, and environmental impact for barrier materials that are used in the production of rigid packaging.

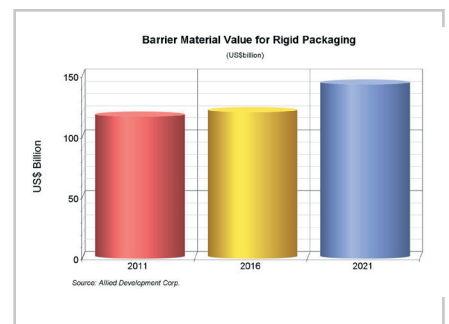
The Market Analysis section examines key drivers and trends affecting the entire industry and individual raw materials, and it separately analyzes the potential and limitations of each barrier material used in the production of rigid packaging. For each barrier material, it considers competing barrier materials and package types and the industry’s requirements for material and package processing, performance, economics, and environmental impact. In addition, the Market Analysis presents both historical and projected consumption for each material through 2021.

Data presented in this study is also available on-line in Allied Development’s SpyGlass™ market database.

With this new study you can:

- > Learn how the increasing focus on the environment will impact barrier materials
- > Learn about the new and emerging barrier technologies for rigid packaging
- > Envision the future potential of each of the barrier materials used in the rigid packaging market
- > Understand the economic value of barrier materials at various levels of barrier
- > Learn which barrier materials are used in a variety of end-use applications
- > Find out which suppliers of barrier materials will benefit from the market and technology developments and trends

Market Value



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Sample Page

A. Barrier principles

This first sub-section identifies and examines key principles that control barrier performance of some materials. Critical variables include temperature, humidity, and barrier material thickness. We will find later in the study, when we examine the barrier performance of the individual barrier materials used for rigid packaging, that the individual barrier materials vary greatly in barrier performance. Materials such as aluminum sheet, glass, and steel sheet provide excellent barrier performance regardless of the environmental conditions. In contrast, the barrier performance of barrier polymers such as EVOH resin and nylon resin depends heavily on environmental conditions.

1. Temperature dependence

Temperature can have a strong impact on barrier performance. For example, Figure 9 illustrates the impact of temperature on oxygen permeation for ethylene vinyl alcohol (EVOH) resin.

Temperature (C)	Oxygen Permeation (cc-mil/m ² -day)
5	~0.1
25	~0.2
35	~0.4
50	~1.3

Source: Kautsky America, Inc. / Solutia EVOH

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Barrier Materials for Rigid Packaging

280
Pages

2017 to 2021

Global Markets, Economics, and Technology

Learn About:

- > The future of the barrier materials for the rigid packaging industry with detailed segment forecasts to 2021
- > In-depth analysis of emerging trends, market conditions, and market drivers
- > Current consumption volumes with projections to 2021
- > The latest technology developments and the opportunities they afford

Written for Decision Makers:

- > Converters
- > Raw Material Suppliers
- > Equipment and Machinery Suppliers
- > Brand Owners
- > Industry Analysts

What is included:

- > Volume forecasts to 2021
- > Detailed data not available anywhere else
- > Details of market opportunities and forecasts broken down by end-use segments and six (6) geographic regions
- > Economic and Environmental attributes of each barrier material

Market Matrix:

Total Volume by Barrier Material (measured in metric tons)

Glass
PET resin
Steel
Aluminum
Transparent barrier
EVOH resin
Nylon resin

Total Value by Barrier Material (US\$)

Global Glass

- Volume by end-use
 - Beverages
 - Beer
 - Carbonated soft drinks
 - Energy drinks
 - Milk
 - RTD - Coffee
 - RTD - Tea
 - Spirits
 - Water
 - Wine
 - Food
 - Fruits and vegetables
 - Meat
 - Nutraceuticals
 - Pasta
 - Sauces and condiments
 - Soups
 - Non-food
 - Household products
 - Personal care
 - Pharmaceutical
- Volume by geographic region

- Market Value in US (\$)dollars

- Asia
- China
- Europe
- Japan
- North America
- ROW

Global PET resin

- volume by end-use
- market value
- volume by geographic region

Global Steel

- volume by end-use
- market value
- volume by geographic region

Global Aluminum

- volume by end-use
- market value
- volume by geographic region

Global Transparent barrier coating

- volume by end-use
- market value
- volume by geographic region

Global EVOH resin

- volume by end-use
- market value
- volume by geographic region

Global Nylon resin

- volume by end-use
- market value
- volume by geographic region

All barrier materials

- volume by end-use
- market value
- volume by geographic region

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Barrier Materials for Flexible Packaging

a comprehensive range of markets and technologies for barrier materials used in flexible packaging

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Pet Food in Pouch vs Tray - USA

value chain and lifecycle analyses of pet food packages in USA

Beer in PET vs. Glass Bottles - EU, USA, or China

value chain and lifecycle analyses of beer packages in Europe

Microwaveable Soup in Pouch vs Bowl - USA

value chain and lifecycle analyses of soup packages in USA

Olive Oil in PET vs Glass Bottles - USA

value chain and lifecycle analyses of olive oil packages in USA

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