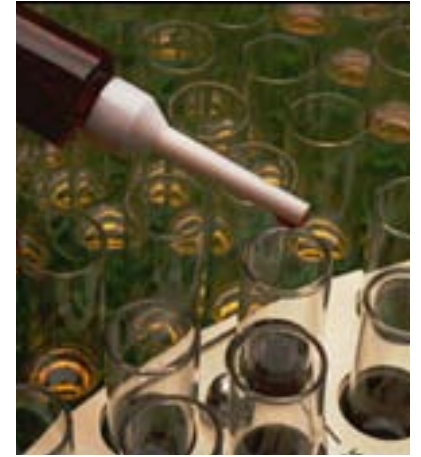


# In Vitro Diagnostic (IVD) Test Packaging

US Industry Study with Forecasts for 2020 & 2025

Study #3421 | June 2016 | \$5300



Over the past several years, advances in reagents and related substances have increased the quality and performance of IVD packaging configurations. This trend is aiding the use of higher value-added closures, containers, and packaging accessories. Nonetheless, the relative cost of packaging to IVD product shipments is expected to decrease gradually through 2025. This slight, but steady drop will reflect efficiency improvements achieved by producers in the design and selection of packaging systems.

## Blood collection tubes to become top-selling IVD group

Culture and media plates and bottles will post the fastest revenue growth among primary IVD containers through 2020 and beyond based on expanding uses in cancer testing and the detection of complex infectious diseases. Blood collection tubes will become the top-selling group of IVD containers by 2025, reflecting their adaptability to virtually all types of IVD procedures and end-user preferences for higher value-added types with enhanced seals and premium additives.

Over the long term, reagent and solution bottles will continue to dominate the packaging of consumables for clinical chemistry and immunoassay procedures. On the downside, these containers will generate below average revenue growth as advances in technology reduce the volume of reagents required for many patient tests.

## Screw-threaded remain the closure of choice

Due to ease of opening and the increasing availability of

tight seal varieties, screw-threaded designs will remain the closure of choice for reagent and solution bottles, blood collection tubes, culture and media bottles, sample and transport tubes, and tubular vials. Straight plug stoppers will be incorporated in an expanding percentage of IVD containers based on strong moisture-, oxygen-, and hydrocarbon-resistant properties.

## Boxes, cartons & trays to exhibit above average growth

Availability of point-of-care test kits will generate above average growth for folding paperboard boxes and cartons and trays. In contrast, the overall market for IVD microplates will expand at a decelerating pace as a number of immunoassays performed in clinical and hospital laboratories are replaced by point-of-care tests and professional molecular diagnostic procedures. Security labels, package inserts, expanded content and intelligent components will generate the most rapid sales advances among other IVD packaging products.

## Study coverage

This study analyzes the US IVD test packaging market. It provides historical data (2005, 2010 and 2015) plus forecasts (2020 and 2025) by product (primary containers, IVD packaging accessories) and application. In addition, the study assesses key market environment factors, analyzes the industry structure, evaluates company market share and profiles 25 US industry participants, including Becton Dickinson, Gerresheimer, Thermo Fisher Scientific, Duran Group and Corning.

## CONTENTS SUMMARY

### Executive Summary

### Market Environment

### Products

Product Overview

Demand Projections

Primary Containers

Reagent & Solution Bottles

Blood Collection Tubes

Sample & Transport Tubes

Culture & Media Bottles

Tubular Vials

Culture & Media Plates

Other Primary IVD Containers

IVD Packaging Accessories

Closures

Screw-Threaded IVD Closures

IVD Stoppers

Septa & Crimp IVD Closures

Dispensing IVD Closures

Secondary Containers

Folding Boxes & Cartons

Trays

Pouches & Bags

Microplates

Labels & Package Inserts

Standard Labels

Security Labels

Package Inserts

Other IVD Packaging Accessories

Shipping Containers

Shrink Wrap

Tamper-Evident Seals

Desiccants

Intelligent Components

Shipping & Packing Supplies

### Applications

Clinical Chemistry Packaging

Immunoassay Packaging

Blood Testing Packaging

Molecular Diagnostic Packaging

Microbiology Packaging

Cellular Analysis Packaging

Anatomical Pathology Packaging

Other IVD Packaging

### Industry Structure

Market Share

Competitive Strategies

Product Development

Marketing & Distribution

Manufacturing

### Company Profiles

## TABLES & CHARTS

### Executive Summary

1 Summary Table

### Products

1 IVD Packaging Demand by Product Group

2 Primary IVD Container Demand by Type

Cht Primary IVD Container Demand by Type, 2015

3 Reagent & Solution Bottle Demand

4 Blood Collection Tube Demand

5 Sample & Transport Tube Demand

6 Culture & Media Bottle Demand

7 Tubular Vial Demand

8 Culture & Media Plate Demand

9 Other Primary IVD Container Demand

10 IVD Packaging Accessories Demand by Product Group

Cht IVD Packaging Accessories Demand by Product Group, 2015

11 IVD Closure Demand by Type

12 Screw-Threaded IVD Closure Demand

13 IVD Stopper Demand

14 Septa & Crimp IVD Closure Demand

15 IVD Dispensing Closure Demand

16 Secondary IVD Container Demand by Type

17 IVD Microplate Demand

18 IVD Label & Package Insert Demand by Type

19 Other IVD Packaging Accessories Demand by Type

### Applications

1 IVD Packaging Demand by Application

Cht IVD Packaging Demand by Application, 2015

2 Clinical Chemistry Packaging Demand by Product Group

3 Immunoassay Packaging Demand by Product Group

4 Blood Testing Packaging Demand by Product Group

5 Molecular Diagnostic Packaging Demand by Product Group

6 Microbiology Packaging Demand by Product Group

7 Cellular Analysis Packaging Demand by Product Group

8 Anatomical Pathology Packaging Demand by Product Group

9 Other IVD Packaging Applications Demand by Product Group

### Industry Structure

1 IVD Packaging Sales by Company, 2015

Cht IVD Packaging Product Market Share by Company, 2015

### IVD PACKAGING PRODUCTS

#### Reagent & Solution Bottles

Demand for reagent and solution bottles is projected to increase 1 billion units annually to \$1 billion in 2025. Included in this category are ethylene terephthalate (PET) bottles, polypropylene (PP) bottles, and low density polyethylene (LDPE) bottles. Both types of plastic bottles are indicated for use in reagent and French squares containers. Reagent and solution bottles, including varieties connected to an external screw-threaded, septa, crimp, plug cap, or aluminum seal closure.

Compared to other primary IVD containers, reagent and solution bottles will see below average revenue growth. The increasing penetration of lower cost plastic containers into clinical chemistry and immunoassay applications will underlie this trend. Plastic reagent and solution bottles will build up demand based on shatterproof advantages over glass configurations, improving barrier properties, and adaptability to radiation sterilization processing. Nonetheless, glass bottles will continue to lead unit and revenue demand in this IVD packaging group over the long term, reflecting their well-established properties of biocompatibility, chemical inertness, low leaching, a strong gas barrier, and a wide temperature service range.

Corning, Duran Group, Gerresheimer, and Thermo Fisher Scientific are among the leading suppliers of IVD reagent and solution bottles for the US market. For the packaging of liquid reagents, buffering solutions, standards, and controls, Corning makes the PYREX line of tempered glass containers and GOSSELIN line of polypropylene plastic containers. Duran Group produces borosilicate glass reagent and solution bottles.

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## This study can help you:

- Determine your market & sales potential
- Learn more about industry competitors
- Assess new products & technologies
- Identify firms to merge with or acquire
- Complement your research & planning
- Gather data for presentations
- Confirm your own internal data
- Make better business decisions

TABLE III-6

### REAGENT & SOLUTION BOTTLE DEMAND

Item	2005	2010	2015	2020	2025
IVD Testing Sites (000)					
000 bottles/site					
Reagent & Solution Bottle Demand (mil units)					
Glass Bottles					
Plastic Bottles					
cents/unit					
Glass Bottles					
Plastic Bottles					
Reagent & Solution Bottle Demand (mil \$)					
Glass Bottles					
Plastic Bottles					
% reagent & solution bottles					
Primary IVD Container Demand (mil \$)					

Source: The Freedonia Group

TABLE IV-3

### IMMUNOASSAY PACKAGING DEMAND BY TYPE (million dollars)

Item	2005	2010	2015	2020	2025
Immunoassay Product Shipments					
\$ pkg/000\$ shipments					
Immunoassay Packaging					
Primary Containers					
Reagent & Solution Bottles					
Blood Collection Tubes					
Sample & Transport Tubes					
Tubular Vials					
Other Primary Containers					
Packaging Accessories					
% immunoassay					
IVD Packaging Applications					

Source: The Freedonia Group

## Related Studies

### Caps & Closures

Demand for caps and closures in the US is forecast to grow 4.2 percent per year to \$11.8 billion in 2020. Value gains will be spurred by the rising use of high value dispensing and child resistant closures, while unit gains will be driven by the adoption of smaller bottles in several key beverage markets. This study examines the \$9.7 billion US market for caps and closures, presenting forecasts for 2020 and 2025 by product and market. In addition, the study analyzes the industry structure, evaluates company market share and profiles participants in the US industry.  
#3419.....June 2016..... \$5300

### Pouches

Demand for pouches in the US will grow 4.4 percent annually through 2020 to \$10.1 billion. Growth will be driven by the introduction of pouch packaging into new markets and the integration of high value features, such as resealable closures and spouts, in more mature markets. Stand-up pouches will remain the fastest growing type. This study analyzes the \$8.2 billion US pouch market, with forecasts for 2020 and 2025 by product type, feature, market, and production method. The study also evaluates company market share and profiles industry players.  
#3383..... February 2016 ..... \$5400

### World Corrugated Boxes

World demand for corrugated boxes is expected to increase 3.7 percent annually through 2019, to 260 billion square meters. Gains will be driven by strong growth in e-commerce and a sustainability advantage over plastic containers. The Asia/Pacific region will account for the largest share of net growth. This study analyzes the 217 billion square meter world corrugated box industry, with forecasts for 2019 and 2024 by raw material and market for six world regions and 27 major countries. The study also evaluates company market share and profiles industry players.  
#3339..... November 2015 ..... \$6400

### Labels

US label demand will rise 3.8 percent annually to \$19.7 billion in 2019. In-mold, stretch sleeve and heat-shrink labels will grow the fastest. Digital printing will continue to displace traditional label printing methods. Primary packaging will remain the largest function, while secondary labeling and mailing/shipping labels will pace gains. This study analyzes the \$16.3 billion US label industry, with forecasts for 2019 and 2024 by material, application method, printing technology, and function. The study also evaluates company market share and profiles industry players.  
#3291.....June 2015..... \$5500

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## Freedonia's methods

- Establishing consistent economic & market forecasts
- Using input/output ratios, flow charts & other economic methods to quantify data
- Employing in-house analysts who meet stringent quality standards
- Interviewing key industry participants, experts & end users
- Researching a proprietary database that includes trade publications, government reports & corporate literature

## About The Freedonia Group

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