

Food Encapsulation Market by Shell Material (Lipids, Polysaccharides, Emulsifiers, Proteins), Technology (Microencapsulation, Nanoencapsulation, Hybrid Encapsulation), Application, Method, Core Phase and Region - Global Forecast to 2027

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Abstracts

The global market for food encapsulation has been estimated to be USD 11.5 billion in 2022 and is projected to grow at a rate of 8.2% between 2022 and 2027.

The food encapsulation market is projected to grow at an exponential rate due to factors such as rising demands for encapsulated colours and flavours in ready to eat foods, growing demand for dietary supplements that use encapsulated bioactives and advancements in technology.

Key players in the food encapsulation market include Cargill, Incorporated (US), BASF SE (Germany), Kerry (Ireland), DSM (Netherlands), Ingredion (US), Symrise (Germany), Sensient (Germany), Balchem (US), International Flavors & Fragrances Inc. (US), Firmenich SA (Switzerland), FrieslandCampina (Netherlands), TasteTech (UK), LycoRed Corp (Israel), Ronald T Dodge Company (US), Innov'io (France), Givaudan (Australia), AnaBio Technologies (Ireland), Sphera Encapsulation (Italy), Reed Pacific (Australia), Aveka (US), Advanced Bionutrition Corp (US), Clextrel France (US), Vitablend (Netherlands), and Encapsys LLC (US).

“Nanoencapsulation segment is estimated to account for the largest share in 2021 with a CAGR of 9.1%.”

Nanoencapsulation technology is a process of packaging or covering food ingredients in a miniature form. It helps in the protection of bioactive agents, such as proteins, lipids,

vitamins, antioxidants, and carbohydrates. It helps in providing improved functionality and stability to produce functional foods and beverages. The size of the nano capsule is within a range of 1 to 100 nanometers. The technology helps enhance solubilization, improve odor and taste masking, and enhance the bioavailability of poorly absorbable function ingredients.

Nanotechnology is a very promising area in the food industry. It is used for various products, such as functional foods, packaging, preservatives, antioxidants, flavors, and fragrances. Its advantages include wide equipment availability, large-scale production, continuous unit operation, ease of manipulation, and low process cost. It is one of the most used encapsulation methods in the food industry.

“Dietary supplement application is projected to witness the growth of 7.8% during the forecast period.”

Ensuring the bioavailability of ingested active ingredients is one of the key objectives of any supplement formulator. Dietary supplements are available in various formats, such as capsules, pills, liquids, and tablets. They focus on reducing the risk of diseases and improving human health. They contain active substances or mixtures of active agents in low concentrations.

Due to their instability, bioactive agents are prone to environmental degradation, which reduces their potency and the associated health benefits they provide. Encapsulation of dietary supplements helps enhance the bioavailability and solubility of these bioactive agents. It protects these agents from reacting with chemicals and the external environment. Encapsulated dietary supplements are of hypoallergenic quality, which makes them ideal supplements. Encapsulated dietary supplements are manufactured without adding artificial flavors, fragrances, binders, or other added coatings to avoid disrupting the ingredients' bioavailability. These advantageous improvements in dietary supplements are driving the demand for encapsulation in the dietary supplements industry.

“Polysaccharides dominate the food encapsulation market in 2022.”

Polysaccharides are types of natural polymers. They are preferred to synthetic polymers because they are safe, inert, biocompatible, non-toxic, biodegradable, eco-friendly, low in cost, and abundantly available in nature. Polysaccharides have numerous resources, including plant resources, such as starch, pectin, and guar gum; algal resources, such as alginate; animal resources, such as chitosan; and microbial resources, such as

dextran and xanthan gum. Polysaccharides are a composition of repeating monosaccharide units connected by glycoside bonds. The structure and properties of polysaccharides are extensively diverse and contain a wide range of chemical compositions and molecular weights. They contain many molecular chains, such as carboxyl, hydroxyl, and amino groups. Polysaccharides are easily chemically modifiable and provide numerous textures and viscosities. Because of their enormous molecular structure and ability to entrap bioactive, polysaccharides are considered the appropriate building blocks for delivery systems. Therefore, they are widely used as inexpensive and safe shell materials for encapsulation. There are numerous types of polysaccharides available in the market for the encapsulation process

Break-up of Primaries:

By Value Chain: Demand side - 41%, Supply side – 59%

By Designation: Managers – 24%, CXOs – 31%, and Executives- 45.0%

By Region: Europe - 29%, Asia Pacific – 32%, North America - 24%, RoW – 15%

Leading players profiled in this report:

Cargill, Incorporated (US)

BASF SE (Germany)

Kerry (Ireland)

DSM (Netherlands)

Ingredion (US)

Symrise(Germany)

Sensient (Germany)

Balchem (US)

International Flavors & Fragrances INC. IFF (US)

Firmenich SA (Switzerland)

FrieslandCampina (Netherlands)

TasteTech (UK)

LycoRed Corp (Israel)

Ronald T Dodge Company (US)

Blue California (US)

Innov'io (France)

Givaudan (Australia)

AnaBio Technologies (Ireland)

Sphera Encapsulation (Italy)

Reed Pacific (Australia)

Aveka (US)

Advanced Bionutrition Corp (US)

Clextral France (US)

Vitablend (Netherlands)

Encapsys LLC (US)

Research Coverage:

The report segments the food encapsulation market based on core phase, shell material, application, method, technology and region. In terms of insights, this report

has focused on various levels of analyses—the competitive landscape, end-use analysis, and company profiles, which together comprise and discuss views on the emerging & high-growth segments of the food encapsulation market, high-growth regions, countries, government initiatives, drivers, restraints, opportunities, and challenges.

Reasons to buy this report:

To get a comprehensive overview of the food encapsulation market

To gain wide-ranging information about the top players in this industry, their product portfolios, and key strategies adopted by them.

To gain insights about the major countries/regions in which the food encapsulation market is flourishing.

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