

## **Biodegradable Medical Plastics Market Report and Forecast 2025-2034**

Market Report | 2025-08-13 | 164 pages | EMR Inc.

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### **Report description:**

The global biodegradable medical plastics market value reached nearly USD 4.34 Billion in 2024. The industry is further expected to grow at a CAGR of 11.90% during the forecast period of 2025-2034 to reach USD 13.36 Billion in 2034.

#### Biodegradable Medical Plastics Market Growth

The increasing demand from the healthcare industry for environmentally friendly and sustainable products has motivated suppliers to produce biodegradable medical plastics using raw materials obtained from plants, which is aiding the growth of the biodegradable medical plastics market. It is possible to reuse the waste produced during hemp processing to generate hemp-based biodegradable plastics. It is also possible to use ethanol produced from sugarcane to produce green polyethylene. To create biodegradable polycarbonate, naturally occurring sugar called thymidine is also combined with carbon dioxide. Likewise, microorganisms that feed on seaweed can be used to produce biodegradable plastics like polyhydroxyalkanoate.

#### Biodegradable Medical Plastics Market Trends

With the growing environmental concern, the demand for biodegradable medical plastics has increased as consumers are aiming to curb the amount of plastic generated from the medical sector. Due to the change in customer preference towards eco-friendly products, along with the growing use of biodegradable plastics for packaging, the biodegradable medical plastics demand is growing globally. The market is also being driven by the implementation of strict laws and prohibitions against the use of plastic bags and other plastic products.

#### Recent Developments

As per the biodegradable medical plastics market dynamics and trends, ARC Future Fellow A/Prof. Jin Zhang and Scientia Professor Chun Wang from UNSW Mechanical and Manufacturing Engineering have developed a partnership with ARC Laureate Fellow Professor Cyrille Boyer from UNSW Chemical Engineering for the development of biodegradable plastic packaging products for

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healthcare products in October 2023.

## Industry Outlook

According to European Bioplastics, the global production capacities of bioplastics in 2023, totalled 2.18 million tonnes. As per the biodegradable medical plastics industry analysis, the production is almost evenly split between biodegradable and biobased/non-biodegradable types, with biodegradable bioplastics slightly leading at 52.1% and biobased/non-biodegradable accounting for 47.9%.

In the biodegradable category, PLA (Polylactic Acid) is the most significant, comprising 31.0% of the total bioplastics production, followed by PHA (Polyhydroxyalkanoates) at 4.8%, SCPC at 6.4%, PBAT (Polybutylene Adipate Terephthalate) at 4.6%, PBS (Polybutylene Succinate) at 0.9%, and CR2 at 4.2%. For the biobased/non-biodegradable bioplastics, PA (Polyamide) represents the largest share at 18.3%, followed by PE (Polyethylene) at 12.3%, and PTT (Polytrimethylene Terephthalate) at 13.5% which contributes to the growth of the biodegradable medical plastics industry. PET (Polyethylene Terephthalate) comprises 2.2% and PP (Polypropylene) at 0.5%. Another 1.1% of the production capacity is categorized as "Others".

The rising cases of health ailments is necessitating the requirement for medical equipment on a global scale. Additionally, the rising sustainability concerns about environment safety contribute to the demand for biodegradable materials in the medical sector. The United States leads the global medical equipment exports valued at USD 30.2 billion, marking it as the highest exporter globally in 2022, which can increase the biodegradable medical plastics industry revenue. Germany follows in second place, with exports worth USD 18.9 billion in 2022. The Netherlands holds the third spot, exporting medical equipment valued at USD 11.9 billion. China is the fourth-largest exporter, with its exports amounting to USD 11.2 billion. Japan rounds out the top five, with medical equipment exports totaling USD 9 billion.

## Biodegradable Medical Plastics Industry Segmentations

Biodegradable plastics are those that can be decomposed into the water, carbon dioxide, and biomass by the action of living organisms, generally microbes. With the rising environmental concern, the production of biodegradable plastics in the medical sector has increased and, thus, they are frequently manufactured using renewable raw materials, microorganisms, petrochemicals, or a combination of all three. The global biodegradable medical plastics industry can be segmented into applications and regions.

Based on its application, the industry is segmented into:

- Medical Devices
- Medical Packaging
- Others

Looks into the regional biodegradable medical plastics industry like:

- North America
- Europe
- Asia Pacific
- Latin America
- Middle East and Africa

## Biodegradable Medical Plastics Market Regional Analysis

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North America accounts for a major market share owing to several businesses in the healthcare sector aiming to reduce their carbon footprint. Moreover, several market players in the region are focusing on research and development for developing sustainable solutions, which further boosts the demand of biodegradable medical plastics market.

### Competitive Landscape

The report presents a detailed analysis of the following key players in the global biodegradable medical plastics industry, looking into their capacity, market shares, and latest developments like capacity expansions, plant turnarounds, and mergers and acquisitions:

- BASF SE
- Corbion NV
- Amcor PLC
- Mondi Plc
- Arkema Group
- Evonik Industries AG
- Koninklijke DSM N.V.
- Others

The EMR report gives an in-depth insight into the industry by providing a SWOT analysis as well as an analysis of Porter's Five Forces model

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