

# **Global Polylactic Acid Market Size study & Forecast, by Raw Material (Corn starch, Sugarcane, Cassava, Others), by Application (Rigid thermoform, Film & sheets, Bottles, Others), by End Use (Packaging, Agriculture, Automotive & transportation, Electronics, Textile, Consumer goods, Bio-medical, Others), and Regional Analysis, 2023-2030**

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## **Abstracts**

Global Polylactic Acid Market is valued at approximately USD 587.50 million in 2022 and is anticipated to grow with a healthy growth rate of more than 21.4% during the forecast period 2023-2030. Polylactic acid, commonly referred to as PLA, represents a thermoplastic monomer sourced from renewable organic materials such as corn starch or sugar cane. The utilization of biomass resources distinguishes PLA production from most plastics, typically derived from fossil fuels via the processes of petroleum distillation and polymerization. The market is strongly influenced by the demand for polylactic acid (PLA) biodegradable resin in packaging. Bioplastics, serving as eco-friendly substitutes for conventional plastics in flexible and rigid packaging, are driving this trend. Additionally, PLA's exceptional mechanical properties, including strength and durability, make it increasingly sought-after in construction applications. Its biocompatibility further enhances its appeal for use in construction materials, with the growth of the construction industry significantly boosting market expansion.

The demand for bioplastics, driven by its environmentally friendly characteristics and ease of recyclability, has been experiencing consistent growth across various industries, particularly in the packaging sector. According to European Bioplastics e.V., In 2023, bioplastics comprised approximately 0.5% of the total annual plastic production, which exceeded 400 million tons worldwide. The global bioplastics production capacity is

projected to witness substantial growth, escalating from approximately 2.18 million tons in 2023 to an estimated 7.43 million tons by 2028. The anticipated rise in demand for thermoplastics within the automotive sector presents a significant opportunity for market growth, driven by the increasing preference for lightweight and energy-efficient vehicles. Furthermore, the biodegradability of PLA products, capable of decomposing into natural components when disposed of in industrial composting facilities, alleviates the strain on landfills. Moreover, the recyclability of PLA, enabling its transformation into new products, serves to further mitigate waste accumulation. This waste management attribute of polylactic acid represents a vital opportunity for market expansion. However, the high cost of Polylactic Acid when compared with the other conventional polymers pose a challenge that stifles market growth throughout the forecast period of 2023-2030. Moreover, the manufacturing process of Polylactic acid (PLA) is both costly and intricate, relying on the precise execution of numerous subfactors to meet industry standards.

The key regions considered for the Global Polylactic Acid Market study includes Asia Pacific, North America, Europe, Latin America, and Middle East & Africa. North America dominated the market in 2022 driven by the growing demand for bioplastics and a strong demand for sustainable applications which has also been promoted by the Governments in this region. Asia Pacific is expected to grow significantly over the forecast period, owing to increased demand for thermoplastics in the automotive industry due to increased volume in the production of energy-efficient and lightweight vehicles. Furthermore, global environmental and climate change apprehensions are compelling nations to opt for biodegradable packaging materials.

Major market player included in this report are:

TotalEnergies Corbion

NatureWorks LLC

Jiangsu Supla Bioplastics Co., Ltd.

Futtero

COFCO International

Jiangxi Keyuan Biopharm Co., Ltd.

Shanghai Tong-jie-liang Biomaterials Co., LTD.

Zhejiang Hisun Biomaterials Co., Ltd.

BASF SE

Danimer Scientific

Recent Developments in the Market:

In March 2024, TotalEnergies Corbion finalized the installation of solar panels at its facility in Rayong, Thailand. This endeavor is following the principles outlined in the United Nations Sustainable Development Goal (SDG) 12, which underscores the importance of fostering responsible consumption and production practices in the Polylactic Acid Market.

In October 2023, NatureWorks announced the advancement of construction on its new fully integrated Ingeo PLA biopolymer manufacturing facility in Thailand. With an annual capacity of 75,000 tons, the facility is advanced to produce the complete range of Ingeo grades, reflecting the company's commitment to providing global downstream packaging and fiber markets with fully biobased, low-carbon biomaterials.

In December 2022, Futerro is planning to establish a new fully integrated PLA biorefinery in Normandy, France. This facility comprises a lactic acid unit for processing agricultural raw materials, a PLA conversion unit, and a dedicated unit for molecular recycling of PLA.

Global Polylactic Acid Market Report Scope:

Historical Data – 2020 - 2021

Base Year for Estimation – 2022

Forecast period - 2023-2030

Report Coverage - Revenue forecast, Company Ranking, Competitive Landscape, Growth factors, and Trends

Segments Covered – Raw material, Application, End User, Region

Regional Scope - North America; Europe; Asia Pacific; Latin America; Middle East & Africa

Customization Scope - Free report customization (equivalent up to 8 analyst's working hours) with purchase. Addition or alteration to country, regional & segment scope\*

The objective of the study is to define market sizes of different segments & countries in recent years and to forecast the values to the coming years. The report is designed to incorporate both qualitative and quantitative aspects of the industry within countries involved in the study.

The report also caters detailed information about the crucial aspects such as driving factors & challenges which will define the future growth of the market. Additionally, it also incorporates potential opportunities in micro markets for stakeholders to invest along with the detailed analysis of competitive landscape and product offerings of key players. The detailed segments and sub-segment of the market are explained below:

By Raw Material:

Corn starch

Sugarcane

Cassava

Others

By Application:

Rigid thermoform

Film & sheets

Bottles

Others

By End Use:

Packaging

Agriculture

Automotive & transportation

Electronics

Textile

Consumer goods

Bio-medical

Others

By Region:

North America

U.S.

Canada

Europe

UK

Germany

France

Spain

Italy

ROE

Asia Pacific

China

India

Japan

Australia

South Korea

RoAPAC

Latin America

Brazil

Mexico

Middle East & Africa

Saudi Arabia

South Africa

Rest of Middle East & Africa

## Contents

### CHAPTER 1. EXECUTIVE SUMMARY

- 1.1. Market Snapshot
- 1.2. Global & Segmental Market Estimates & Forecasts, 2020-2030 (USD Million)
  - 1.2.1. Polylactic Acid Market, by Region, 2020-2030 (USD Million)
  - 1.2.2. Polylactic Acid Market, by Raw Material, 2020-2030 (USD Million)
  - 1.2.3. Polylactic Acid Market, by Application, 2020-2030 (USD Million)
  - 1.2.4. Polylactic Acid Market, by End Use, 2020-2030 (USD Million)
- 1.3. Key Trends
- 1.4. Estimation Methodology
- 1.5. Research Assumption

### CHAPTER 2. GLOBAL POLYLACTIC ACID MARKET DEFINITION AND SCOPE

- 2.1. Objective of the Study
- 2.2. Market Definition & Scope
  - 2.2.1. Industry Evolution
  - 2.2.2. Scope of the Study
- 2.3. Years Considered for the Study
- 2.4. Currency Conversion Rates

### CHAPTER 3. GLOBAL POLYLACTIC ACID MARKET DYNAMICS

- 3.1. Polylactic Acid Market Impact Analysis (2020-2030)
  - 3.1.1. Market Drivers
    - 3.1.1.1. Increasing demand for Bioplastics in Packaging industry
    - 3.1.1.2. Increasing use of PLA as biodegradable resin in various construction applications
  - 3.1.2. Market Challenges
    - 3.1.2.1. High Cost of Polylactic Acid than other conventional polymers
    - 3.1.2.2. Expensive and Complex Production factors
  - 3.1.3. Market Opportunities
    - 3.1.3.1. Biodegradability of waste generated from PLA based products
    - 3.1.3.2. Increasing demand for thermoplastics in the automotive industry to produce energy efficient & lightweight vehicles

### CHAPTER 4. GLOBAL POLYLACTIC ACID MARKET INDUSTRY ANALYSIS

*Global Polylactic Acid Market Size study & Forecast, by Raw Material (Corn starch, Sugarcane, Cassava, Others)...*

- 4.1. Porter's 5 Force Model
  - 4.1.1. Bargaining Power of Suppliers
  - 4.1.2. Bargaining Power of Buyers
  - 4.1.3. Threat of New Entrants
  - 4.1.4. Threat of Substitutes
  - 4.1.5. Competitive Rivalry
- 4.2. Porter's 5 Force Impact Analysis
- 4.3. PEST Analysis
  - 4.3.1. Political
  - 4.3.2. Economical
  - 4.3.3. Social
  - 4.3.4. Technological
  - 4.3.5. Environmental
  - 4.3.6. Legal
- 4.4. Top investment opportunity
- 4.5. Top winning strategies
- 4.6. COVID-19 Impact Analysis
- 4.7. Disruptive Trends
- 4.8. Industry Expert Perspective
- 4.9. Analyst Recommendation & Conclusion

## **CHAPTER 5. GLOBAL POLYLACTIC ACID MARKET, BY RAW MATERIAL**

- 5.1. Market Snapshot
- 5.2. Global Polylactic Acid Market by Raw Material, Performance - Potential Analysis
- 5.3. Global Polylactic Acid Market Estimates & Forecasts by Raw Material 2020-2030 (USD Million)
- 5.4. Polylactic Acid Market, Sub Segment Analysis
  - 5.4.1. Corn starch
  - 5.4.2. Sugarcane
  - 5.4.3. Cassava
  - 5.4.4. Others

## **CHAPTER 6. GLOBAL POLYLACTIC ACID MARKET, BY APPLICATION**

- 6.1. Market Snapshot
- 6.2. Global Polylactic Acid Market by Application, Performance - Potential Analysis
- 6.3. Global Polylactic Acid Market Estimates & Forecasts by Application 2020-2030



(USD Million)

#### 6.4. Polylactic Acid Market, Sub Segment Analysis

- 6.4.1. Rigid thermoform
- 6.4.2. Film & sheets
- 6.4.3. Bottles
- 6.4.4. Others

### **CHAPTER 7. GLOBAL POLYLACTIC ACID MARKET, BY END USE**

#### 7.1. Market Snapshot

#### 7.2. Global Polylactic Acid Market by End Use, Performance - Potential Analysis

#### 7.3. Global Polylactic Acid Market Estimates & Forecasts by End Use 2020-2030 (USD Million)

#### 7.4. Polylactic Acid Market, Sub Segment Analysis

- 7.4.1. Packaging
- 7.4.2. Agriculture
- 7.4.3. Automotive & transportation
- 7.4.4. Electronics
- 7.4.5. Textile
- 7.4.6. Consumer goods
- 7.4.7. Bio-medical
- 7.4.8. Others

### **CHAPTER 8. GLOBAL POLYLACTIC ACID MARKET, REGIONAL ANALYSIS**

#### 8.1. Top Leading Countries

#### 8.2. Top Emerging Countries

#### 8.3. Polylactic Acid Market, Regional Market Snapshot

#### 8.4. North America Polylactic Acid Market

##### 8.4.1. U.S. Polylactic Acid Market

8.4.1.1. Raw Material breakdown estimates & forecasts, 2020-2030

8.4.1.2. Application breakdown estimates & forecasts, 2020-2030

8.4.1.3. End Use breakdown estimates & forecasts, 2020-2030

##### 8.4.2. Canada Polylactic Acid Market

#### 8.5. Europe Polylactic Acid Market Snapshot

##### 8.5.1. U.K. Polylactic Acid Market

##### 8.5.2. Germany Polylactic Acid Market

##### 8.5.3. France Polylactic Acid Market

##### 8.5.4. Spain Polylactic Acid Market

- 8.5.5. Italy Polylactic Acid Market
- 8.5.6. Rest of Europe Polylactic Acid Market
- 8.6. Asia-Pacific Polylactic Acid Market Snapshot
  - 8.6.1. China Polylactic Acid Market
  - 8.6.2. India Polylactic Acid Market
  - 8.6.3. Japan Polylactic Acid Market
  - 8.6.4. Australia Polylactic Acid Market
  - 8.6.5. South Korea Polylactic Acid Market
  - 8.6.6. Rest of Asia Pacific Polylactic Acid Market
- 8.7. Latin America Polylactic Acid Market Snapshot
  - 8.7.1. Brazil Polylactic Acid Market
  - 8.7.2. Mexico Polylactic Acid Market
- 8.8. Middle East & Africa Polylactic Acid Market
  - 8.8.1. Saudi Arabia Polylactic Acid Market
  - 8.8.2. South Africa Polylactic Acid Market
  - 8.8.3. Rest of Middle East & Africa Polylactic Acid Market

## **CHAPTER 9. COMPETITIVE INTELLIGENCE**

- 9.1. Key Company SWOT Analysis
  - 9.1.1. Company
  - 9.1.2. Company
  - 9.1.3. Company
- 9.2. Top Market Strategies
- 9.3. Company Profiles
  - 9.3.1. TotalEnergies Corbion
    - 9.3.1.1. Key Information
    - 9.3.1.2. Overview
    - 9.3.1.3. Financial (Subject to Data Availability)
    - 9.3.1.4. Product Summary
    - 9.3.1.5. Recent Developments
  - 9.3.2. NatureWorks LLC
  - 9.3.3. Jiangsu Supla Bioplastics Co., Ltd.
  - 9.3.4. Futerro
  - 9.3.5. COFCO International
  - 9.3.6. Jiangxi Keyuan Biopharm Co.,Ltd.
  - 9.3.7. Shanghai Tong-jie-liang Biomaterials Co.,LTD.
  - 9.3.8. Zhejiang Hisun Biomaterials Co., Ltd.
  - 9.3.9. BASF SE

### 9.3.10. Danimer Scientific

## CHAPTER 10. RESEARCH PROCESS

### 10.1. Research Process

#### 10.1.1. Data Mining

#### 10.1.2. Analysis

#### 10.1.3. Market Estimation

#### 10.1.4. Validation

#### 10.1.5. Publishing

### 10.2. Research Attributes

### 10.3. Research Assumption

## 12 .LIST OF TABLES

TABLE 1. Global Polylactic Acid Market, report scope

TABLE 2. Global Polylactic Acid Market estimates & forecasts by Region 2020-2030 (USD Million)

TABLE 3. Global Polylactic Acid Market estimates & forecasts by Raw Material 2020-2030 (USD Million)

TABLE 4. Global Polylactic Acid Market estimates & forecasts by Application 2020-2030 (USD Million)

TABLE 5. Global Polylactic Acid Market estimates & forecasts by End Use 2020-2030 (USD Million)

TABLE 6. Global Polylactic Acid Market by segment, estimates & forecasts, 2020-2030 (USD Million)

TABLE 7. Global Polylactic Acid Market by region, estimates & forecasts, 2020-2030 (USD Million)

TABLE 8. Global Polylactic Acid Market by segment, estimates & forecasts, 2020-2030 (USD Million)

TABLE 9. Global Polylactic Acid Market by region, estimates & forecasts, 2020-2030 (USD Million)

TABLE 10. Global Polylactic Acid Market by segment, estimates & forecasts, 2020-2030 (USD Million)

TABLE 11. Global Polylactic Acid Market by region, estimates & forecasts, 2020-2030 (USD Million)

TABLE 12. Global Polylactic Acid Market by segment, estimates & forecasts, 2020-2030 (USD Million)

TABLE 13. Global Polylactic Acid Market by region, estimates & forecasts, 2020-2030

(USD Million)

TABLE 14. Global Polylactic Acid Market by segment, estimates & forecasts, 2020-2030

(USD Million)

TABLE 15. Global Polylactic Acid Market by region, estimates & forecasts, 2020-2030

(USD Million)

TABLE 16. U.S. Polylactic Acid Market estimates & forecasts, 2020-2030 (USD Million)

TABLE 17. U.S. Polylactic Acid Market estimates & forecasts by segment 2020-2030

(USD Million)

TABLE 18. U.S. Polylactic Acid Market estimates & forecasts by segment 2020-2030

(USD Million)

TABLE 19. Canada Polylactic Acid Market estimates & forecasts, 2020-2030 (USD Million)

TABLE 20. Canada Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 21. Canada Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 22. UK Polylactic Acid Market estimates & forecasts, 2020-2030 (USD Million)

TABLE 23. UK Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 24. UK Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 25. Germany Polylactic Acid Market estimates & forecasts, 2020-2030 (USD Million)

TABLE 26. Germany Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 27. Germany Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 28. France Polylactic Acid Market estimates & forecasts, 2020-2030 (USD Million)

TABLE 29. France Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 30. France Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 31. Italy Polylactic Acid Market estimates & forecasts, 2020-2030 (USD Million)

TABLE 32. Italy Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 33. Italy Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 34. Spain Polylactic Acid Market estimates & forecasts, 2020-2030 (USD

Million)

TABLE 35. Spain Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 36. Spain Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 37. RoE Polylactic Acid Market estimates & forecasts, 2020-2030 (USD Million)

TABLE 38. RoE Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 39. RoE Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 40. China Polylactic Acid Market estimates & forecasts, 2020-2030 (USD Million)

TABLE 41. China Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 42. China Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 43. India Polylactic Acid Market estimates & forecasts, 2020-2030 (USD Million)

TABLE 44. India Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 45. India Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 46. Japan Polylactic Acid Market estimates & forecasts, 2020-2030 (USD Million)

TABLE 47. Japan Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 48. Japan Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 49. South Korea Polylactic Acid Market estimates & forecasts, 2020-2030 (USD Million)

TABLE 50. South Korea Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 51. South Korea Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 52. Australia Polylactic Acid Market estimates & forecasts, 2020-2030 (USD Million)

TABLE 53. Australia Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 54. Australia Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 55. RoAPAC Polylactic Acid Market estimates & forecasts, 2020-2030 (USD Million)

TABLE 56. RoAPAC Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 57. RoAPAC Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 58. Brazil Polylactic Acid Market estimates & forecasts, 2020-2030 (USD Million)

TABLE 59. Brazil Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 60. Brazil Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 61. Mexico Polylactic Acid Market estimates & forecasts, 2020-2030 (USD Million)

TABLE 62. Mexico Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 63. Mexico Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 64. RoLA Polylactic Acid Market estimates & forecasts, 2020-2030 (USD Million)

TABLE 65. RoLA Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 66. RoLA Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 67. Saudi Arabia Polylactic Acid Market estimates & forecasts, 2020-2030 (USD Million)

TABLE 68. South Africa Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 69. RoMEA Polylactic Acid Market estimates & forecasts by segment 2020-2030 (USD Million)

TABLE 70. List of secondary sources, used in the study of global Polylactic Acid Market

TABLE 71. List of primary sources, used in the study of global Polylactic Acid Market

TABLE 72. Years considered for the study

TABLE 73. Exchange rates considered

List of tables and figures are dummy in nature, final lists may vary in the final deliverable



## List Of Figures

### LIST OF FIGURES

- FIG 1. Global Polylactic Acid Market, research methodology
  - FIG 2. Global Polylactic Acid Market, Market estimation techniques
  - FIG 3. Global Market size estimates & forecast methods
  - FIG 4. Global Polylactic Acid Market, key trends 2022
  - FIG 5. Global Polylactic Acid Market, growth prospects 2023-2030
  - FIG 6. Global Polylactic Acid Market, porters 5 force model
  - FIG 7. Global Polylactic Acid Market, pest analysis
  - FIG 8. Global Polylactic Acid Market, value chain analysis
  - FIG 9. Global Polylactic Acid Market by segment, 2020 & 2030 (USD Million)
  - FIG 10. Global Polylactic Acid Market by segment, 2020 & 2030 (USD Million)
  - FIG 11. Global Polylactic Acid Market by segment, 2020 & 2030 (USD Million)
  - FIG 12. Global Polylactic Acid Market by segment, 2020 & 2030 (USD Million)
  - FIG 13. Global Polylactic Acid Market by segment, 2020 & 2030 (USD Million)
  - FIG 14. Global Polylactic Acid Market, regional snapshot 2020 & 2030
  - FIG 15. North America Polylactic Acid Market 2020 & 2030 (USD Million)
  - FIG 16. Europe Polylactic Acid Market 2020 & 2030 (USD Million)
  - FIG 17. Asia pacific Polylactic Acid Market 2020 & 2030 (USD Million)
  - FIG 18. Latin America Polylactic Acid Market 2020 & 2030 (USD Million)
  - FIG 19. Middle East & Africa Polylactic Acid Market 2020 & 2030 (USD Million)
- List of tables and figures are dummy in nature, final lists may vary in the final deliverable

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