

Polyglycerol Sebacate (PGS) Market Opportunity, Growth Drivers, Industry Trend Analysis, and Forecast 2024–2032

<https://marketpublishers.com/r/PC104E4A4931EN.html>

Date: September 2024

Pages: 200

Price: US\$ 4,365.00 (Single User License)

ID: PC104E4A4931EN

Abstracts

The Global Polyglycerol Sebacate (PGS) Market was valued at USD 65.49 million in 2023 and is expected to grow at 10.6% CAGR from 2024 to 2032. This versatile elastomer is widely used in bio-coating applications, particularly for textiles like valves and meshes made from polyethylene and polyester. It is especially valued in tissue engineering and nerve and cardiovascular tissue restoration. In addition to its current use in tissue scaffolding, PGS can be combined with additives for extrusion and employed in bone grafts for joint replacements. While the current market for PGS remains small and in a developmental phase, its potential is significant.

PGS could eventually replace other biomaterials like polylactic acid (PLA), poly-L-lactic acid (PLLA), poly glycolic acid (PGA), and polycaprolactone (PCL), given its ability to mimic natural tissue with better flexibility. Its softness, robustness, and cost-effectiveness make it an attractive alternative to other biodegradable elastomers.

Applications of PGS include nerve guidance, tissue regeneration, blood vessel reconstruction, and drug delivery systems. The soft gel segment is expected to reach USD 43.35 million by 2032, growing at a 9.6% CAGR. PGS's flexibility and biocompatibility have made soft gels increasingly popular in medical applications, particularly in drug delivery and tissue scaffolding. Additionally, PGS in paste form is gaining attention for its easy application and customization, making it ideal for regenerative medicine and wound care. The tissue engineering segment held a 45% market share in 2023, valued at USD 29.47 million, and is projected to grow at a 9% CAGR through 2032. PGS's biocompatibility and adaptability have made it highly suitable for scaffolds that support cell growth and tissue repair in regenerative medicine. In the drug delivery space, PGS is also gaining traction due to its controlled degradation properties, enabling more targeted and innovative treatment systems.

In North America, the PGS market is expected to reach USD 74.34 million by 2032,

growing at a 12% CAGR. This growth is driven by the rising aging population and the increasing prevalence of lifestyle diseases, such as obesity and osteoarthritis, particularly in the U.S. While Secant Group LLC currently leads the PGS market, other players in the biodegradable bone graft polymer industry are expected to enter soon. Moreover, increasing awareness and demand from developing regions, particularly in Eastern Europe, are set to boost the biomaterials market further.

Contents

Report Content

CHAPTER 1 METHODOLOGY & SCOPE

- 1.1 Market scope & definition
- 1.2 Base estimates & calculations
- 1.3 Forecast calculation
- 1.4 Data sources
 - 1.4.1 Primary
 - 1.4.2 Secondary
 - 1.4.2.1 Paid sources
 - 1.4.2.2 Public sources

CHAPTER 2 EXECUTIVE SUMMARY

- 2.1 Industry 360° synopsis

CHAPTER 3 INDUSTRY INSIGHTS

- 3.1 Industry ecosystem analysis
 - 3.1.1 Key manufacturers
 - 3.1.2 Distributors
 - 3.1.3 Profit margins across the industry
- 3.2 Industry impact forces
 - 3.2.1 Growth drivers
 - 3.2.1.1 Rising product demand for tissue engineering and regenerative medicine in medical industry
 - 3.2.1.2 Growing demand for biomedical textiles to improve healing process in medical industry
 - 3.2.2 Market challenges
 - 3.2.2.1 Availability of several product substitutes and unavailability of long-term data on its performance attributes
 - 3.2.3 Market opportunity
 - 3.2.3.1 New opportunities
 - 3.2.3.2 Growth potential analysis
- 3.3 Raw material landscape
 - 3.3.1 Manufacturing trends

- 3.3.2 Technology evolution
 - 3.3.2.1 Sustainable manufacturing
 - 3.3.2.1.1 Green practices
 - 3.3.2.1.2 Decarbonization
- 3.3.3 Sustainability in raw materials
- 3.3.4 Pricing trends (USD/Ton), 2021 - 2032
 - 3.3.4.1 North America
 - 3.3.4.2 Europe
 - 3.3.4.3 Asia Pacific
 - 3.3.4.4 Latin America
 - 3.3.4.5 Middle East & Africa
- 3.4 Regulations & market impact
- 3.5 Porter's analysis
- 3.6 PESTEL analysis

CHAPTER 4 COMPETITIVE LANDSCAPE, 2023

- 4.1 Company market share analysis
- 4.2 Competitive positioning matrix
- 4.3 Strategic outlook matrix

CHAPTER 5 MARKET SIZE AND FORECAST, BY FORM, 2021-2032 (USD MILLION, TONS)

- 5.1 Key trends
- 5.2 Soft gel
- 5.3 Paste
- 5.4 Extruded products
- 5.5 Others

CHAPTER 6 MARKET SIZE AND FORECAST, BY APPLICATION, 2021-2032 (USD MILLION, TONS)

- 6.1 Key trends
- 6.2 Tissue engineering
- 6.3 Drug delivery
- 6.4 Adhesives
- 6.5 Coatings
- 6.6 Others

CHAPTER 7 MARKET SIZE AND FORECAST, BY REGION, 2021-2032 (USD MILLION, TONS)

7.1 Key trends

7.2 North America

7.2.1 U.S.

7.2.2 Canada

7.3 Europe

7.3.1 Germany

7.3.2 UK

7.3.3 France

7.3.4 Italy

7.3.5 Spain

7.4 Asia Pacific

7.4.1 China

7.4.2 India

7.4.3 Japan

7.4.4 South Korea

7.4.5 Australia

7.5 Latin America

7.5.1 Brazil

7.5.2 Mexico

7.6 MEA

7.6.1 Saudi Arabia

7.6.2 UAE

7.6.3 South Africa

CHAPTER 8 COMPANY PROFILES

8.1 BASF SE

8.2 Cambridge Polymers Group

8.3 Evonik Industries AG

8.4 Fuso Chemical Co., Ltd.

8.5 Orthofix International NV

8.6 Polymers LLC

8.7 PolySciTech (Akina, Inc.)

8.8 Resinex

8.9 Secant LLC

8.10 Sigma-Aldrich (Merck Group)

8.11 Synthecon Inc.

I would like to order

Product name: Polyglycerol Sebacate (PGS) Market Opportunity, Growth Drivers, Industry Trend Analysis, and Forecast 2024–2032

Product link: <https://marketpublishers.com/r/PC104E4A4931EN.html>

Price: US\$ 4,365.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/PC104E4A4931EN.html>