

Selective Laser Sintering Market Report by Type (Metal, Plastic), Application (Automotive, Aerospace, Defense, and Others), and Region 2024-2032

<https://marketpublishers.com/r/SE08145D9E26EN.html>

Date: July 2024

Pages: 136

Price: US\$ 3,899.00 (Single User License)

ID: SE08145D9E26EN

Abstracts

The global selective laser sintering market size reached US\$ 3.0 Billion in 2023. Looking forward, IMARC Group expects the market to reach US\$ 14.1 Billion by 2032, exhibiting a growth rate (CAGR) of 18.4% during 2024-2032. Increasing demand for customized products, focus on sustainable manufacturing, rising research and development (R&D) investments, integration with digital technologies, new platform emergence, on-demand manufacturing trends, and expanding applications in aerospace, automotive, and healthcare industries are some of the factors providing a thrust to the market growth.

Selective Laser Sintering Market Analysis:

Major Market Drivers: Several factors drive the global selective laser sintering (SLS) market, such as the increasing demand for unique and more complex parts for industries like aerospace and automotive. SLS is attractive because it is capable of producing high-strength, durable parts with complex geometries. Rising healthcare industry, particularly in prosthetics and dental implants, elevates the SLS market. In line with this, investments in research and development (R&D) continue to improve the technology of SLS while expanding its efficiency and applications, which is further stimulating the selective laser sintering market share. An increase in small-batch production and prototyping has helped bolster demand even more. On the other hand, the adoption of Industry 4.0 and smart manufacturing practices bolster the adoption SLS developments, which is boosting the market growth.

Key Market Trends: The key selective laser sintering market trends include the shift towards next stage of three-dimensional (3D) printing. On the other hand, the use of artificial intelligence (AI) as well as machine learning (ML) in processes like SLS is

helping in improving accuracy and overall reducing the time of production. The advantage of high-performance polymers and composites in SLS is leading to the trend towards adopting this technology more, as many new applications are being introduced, which is fueling the market growth. The growing use of SLS for the production of lightweight for electric vehicles (EVs) is on the rise SLS for digital inventory and on-demand manufacturing, which is fostering the market growth. SLS has also seen increased use in healthcare, particularly for patient-specific implants and surgical guides.

Geographical Trends: North America, supported by a well-established industrial sector, coupled with high technological advancements and an apt adoption of additive manufacturing technologies, leads the selective laser sintering market. The US is a pivotal market, enforced by the existence of a plentitude of large aerospace, automotive and healthcare organizations that are heavy users of SLS. Moreover, Germany, and the UK lead the way in Europe due to their well-established manufacturing-based economies and innovation-led economies. China, Japan leads the way in APAC as manufacturing grows, 3D Printing investments surge, which is further driving the selective laser sintering market growth. The former, as highly regulated industry receives substantial support from local governments and private sector, while the latter enjoys higher emphasis on digital manufacturing.

Competitive Landscape: The competitive landscape of the market is characterized by the presence of key selective laser sintering companies, such as 3D Systems Inc., EOS GmbH Electro Optical Systems, Farsoon Americas Corp, Fathom Manufacturing, Formlabs Inc., Nexa3d Inc., Prodways Group, Renishaw plc, Ricoh Company Ltd., Sharebot S.r.l., Sinterit sp. z o.o, Sintratec AG, etc.

Challenges and Opportunities: The selective laser sintering market faces several challenges, including high initial setup costs and the need for skilled operators. The complexity of post-processing and the limited availability of materials compared to other 3D printing methods also pose challenges. However, these challenges present opportunities for innovation and growth. Advances in material science are expanding the range of materials compatible with SLS, addressing some of these challenges. The development of user-friendly SLS systems and automated post-processing solutions can reduce the need for specialized skills, which is boosting the selective laser sintering demand.

Selective Laser Sintering Market Trends:

Increasing Demand for Customized and Complex Products

The global selective laser sintering (SLS) market is triggered massively by a surging demand across several industries for customized and intricate products. This growing

need is for custom made parts and components in sectors such as aerospace, automotive, healthcare and consumer goods. SLS technology is ideal for creating custom implants and additionally for detailed complex geometry; this can be difficult if not impossible to achieve through non additive manufacturing. Moreover, in the automotive and aerospace sectors, the demand for lightweight and complex parts that enhance performance and fuel efficiency is driving the adoption of SLS. This technology allows for the production of components with optimized designs, reducing weight without compromising strength, which is driving the selective laser sintering market outlook.

Growing Focus on Sustainable Manufacturing Practices

Rising demand for sustainable manufacturing practices have contributed to the market as manufacturers are analyzing ways to conserve energy and reduce waste as a result of the increasing prominence of environmental concerns. SLS technology is ideal for those goals as it is an additive manufacturing process producing parts layer by layer, it utilizes only the material needed for a final element. This results in a drastic reduction in material waste compared to traditional subtractive manufacturing methods that usually throw away leftover material. Another benefit of SLS is that it can use recyclable materials—benefiting overall sustainability, which is accelerating the selective laser sintering industry.

Advancements in SLS Materials

The development of new and better SLS materials, including metals, polymers, and ceramics, is providing a considerable boost to the market growth. These specifically engineered capabilities have now enabled to fabricate parts with advanced mechanical properties such as strength, toughness, thermal resistance that are ideal for high-performance and industrial-grade applications. For instance, the development of high-performance polymers such as polyamide (nylon) to deliver lightweight and strong components to the automotive and aerospace sectors. Moreover, developments in metal powders such as aluminium and titanium alloys have broadened the horizons of complex metal parts manufacturing with high accuracy and superb material properties.

Selective Laser Sintering Industry Segmentation:

IMARC Group provides an analysis of the key trends in each segment of the market, along with forecasts at the global, regional, and country levels for 2024-2032. Our report has categorized the market based on the type and application.

Breakup by Type:

Metal
Plastic

Metal accounts for the majority of the market share

The report has provided a detailed breakup and analysis of the market based on the type. This includes metal and plastic. According to the report, metal represented the largest segment.

The metal segment is driven by the increasing demand for lightweight components in the aerospace industry, where reducing weight is crucial for enhancing fuel efficiency and performance. Selective laser sintering (SLS) technology is ideal for producing intricate, high-strength metal parts that meet stringent aerospace standards. Advanced metal powders, such as titanium and aluminum alloys, provide excellent strength-to-weight ratios and resistance to extreme temperatures and corrosion. This capability allows aerospace manufacturers to create complex geometries that are not possible with traditional manufacturing methods. The focus on sustainability and minimizing material waste further propels the adoption of SLS technology in aerospace, driving the growth of the metal segment in the SLS market.

Breakup by Application:

Automotive
Aerospace
Defense
Others

Automotive accounts for the majority of the market share

The report has provided a detailed breakup and analysis of the market based on the application. This includes automotive, aerospace, defense, and others. According to the report, automotive represented the largest segment.

The automotive segment is driven by the increasing demand for lightweight components, which are crucial for enhancing fuel efficiency and reducing emissions. Selective laser sintering (SLS) technology allows manufacturers to produce intricate and lightweight metal parts that are difficult to achieve with traditional methods. Using

advanced metal powders such as aluminum and magnesium alloys, SLS creates parts with high strength-to-weight ratios, improving vehicle performance. This capability enables automotive designers to innovate with complex geometries that optimize weight reduction without compromising safety or durability. As the automotive industry continues to prioritize efficiency and regulatory compliance, the adoption of SLS for lightweight components is expected to grow, driving the segment forward.

Breakup by Region:

North America

United States

Canada

Asia-Pacific

China

Japan

India

South Korea

Australia

Indonesia

Others

Europe

Germany

France

United Kingdom

Italy

Spain

Russia

Others

Latin America

Brazil

Mexico

Others

Middle East and Africa

North America leads the market, accounting for the largest selective laser sintering market share

The market research report has also provided a comprehensive analysis of all the major regional markets, which include North America (the United States and Canada); Asia

Pacific (China, Japan, India, South Korea, Australia, Indonesia, and others); Europe (Germany, France, the United Kingdom, Italy, Spain, Russia, and others); Latin America (Brazil, Mexico, and others); and the Middle East and Africa. According to the report, North America accounted for the largest market share.

The North America market is driven by the increasing technological advancements in selective laser sintering (SLS) technology, which enhance the capabilities and applications of this additive manufacturing process. Continuous innovation in SLS systems, including improvements in speed, precision, and material diversity, has significantly boosted its adoption across various industries. The region's strong focus on research and development, supported by substantial investments from both private and public sectors, fosters the development of cutting-edge SLS solutions. This technological progress not only improves the efficiency and quality of SLS-produced parts but also expands the range of industries that can benefit from this technology, driving market growth in North America.

Competitive Landscape:

The market research report has also provided a comprehensive analysis of the competitive landscape in the market. Detailed profiles of all major companies have also been provided. Some of the major market players in the selective laser sintering include 3D Systems Inc., EOS GmbH Electro Optical Systems, Farsoon Americas Corp, Fathom Manufacturing, Formlabs Inc., Nexa3d Inc., Prodways Group, Renishaw plc, Ricoh Company Ltd., Sharebot S.r.l., Sinterit sp. z o.o, Sintratec AG., etc.

(Please note that this is only a partial list of the key players, and the complete list is provided in the report.)

Key players in the selective laser sintering (SLS) market are focusing on several strategic initiatives to strengthen their market position and drive growth. They are heavily investing in research and development (R&D) to advance SLS technology, enhancing the speed, precision, and material compatibility of their systems. Collaborations and partnerships with academic institutions, research organizations, and industry stakeholders are common to foster innovation and expand application areas. Additionally, key players are expanding their product portfolios by introducing new SLS machines and materials, catering to the diverse needs of industries such as aerospace, automotive, healthcare, and consumer goods. They are also emphasizing the development of user-friendly and cost-effective solutions to attract small and medium-sized enterprises. Marketing efforts are directed towards demonstrating the benefits of SLS through case studies and success stories. Furthermore, geographic expansion

through new manufacturing facilities and service centers aims to increase their global footprint and better serve regional markets.

Selective Laser Sintering Market News:

In 2023: 3D Systems introduced new materials and technologies at Formnext 2023 to broaden its application portfolio. These innovations include the Accura AMX High Temp 300C, an SLA resin with a high heat deflection temperature, and the SLS 300, a compact, closed-loop selective laser sintering system designed for smaller manufacturing environments. The company also unveiled the DMP Flex 350 Triple, featuring a larger build area and three-laser system for higher productivity in metal part production.

In 2023: EOS GmbH announced the launch of its new EOS P 500 SLS system, which is designed to enhance productivity and flexibility in high-volume industrial 3D printing. This system features dual lasers and a larger build chamber, allowing for faster production of high-quality parts. Additionally, EOS introduced several new high-performance polymers, including PA 1101, a bio-based material offering superior mechanical properties and recyclability.

Key Questions Answered in This Report

1. How big is the global selective laser sintering market?
2. What is the expected growth rate of the global selective laser sintering market during 2024-2032?
3. What are the key factors driving the global selective laser sintering market?
4. What has been the impact of COVID-19 on the global selective laser sintering market?
5. What is the breakup of the global selective laser sintering market based on the type?
6. What is the breakup of the global selective laser sintering market based on the application?
7. What are the key regions in the global selective laser sintering market?
8. Who are the key players/companies in the global selective laser sintering market?

Contents

1 PREFACE

2 SCOPE AND METHODOLOGY

- 2.1 Objectives of the Study
- 2.2 Stakeholders
- 2.3 Data Sources
 - 2.3.1 Primary Sources
 - 2.3.2 Secondary Sources
- 2.4 Market Estimation
 - 2.4.1 Bottom-Up Approach
 - 2.4.2 Top-Down Approach
- 2.5 Forecasting Methodology

3 EXECUTIVE SUMMARY

4 INTRODUCTION

- 4.1 Overview
- 4.2 Key Industry Trends

5 GLOBAL SELECTIVE LASER SINTERING MARKET

- 5.1 Market Overview
- 5.2 Market Performance
- 5.3 Impact of COVID-19
- 5.4 Market Forecast

6 MARKET BREAKUP BY TYPE

- 6.1 Metal
 - 6.1.1 Market Trends
 - 6.1.2 Market Forecast
- 6.2 Plastic
 - 6.2.1 Market Trends
 - 6.2.2 Market Forecast

7 MARKET BREAKUP BY APPLICATION

7.1 Automotive

7.1.1 Market Trends

7.1.2 Market Forecast

7.2 Aerospace

7.2.1 Market Trends

7.2.2 Market Forecast

7.3 Defense

7.3.1 Market Trends

7.3.2 Market Forecast

7.4 Others

7.4.1 Market Trends

7.4.2 Market Forecast

8 MARKET BREAKUP BY REGION

8.1 North America

8.1.1 United States

8.1.1.1 Market Trends

8.1.1.2 Market Forecast

8.1.2 Canada

8.1.2.1 Market Trends

8.1.2.2 Market Forecast

8.2 Asia-Pacific

8.2.1 China

8.2.1.1 Market Trends

8.2.1.2 Market Forecast

8.2.2 Japan

8.2.2.1 Market Trends

8.2.2.2 Market Forecast

8.2.3 India

8.2.3.1 Market Trends

8.2.3.2 Market Forecast

8.2.4 South Korea

8.2.4.1 Market Trends

8.2.4.2 Market Forecast

8.2.5 Australia

8.2.5.1 Market Trends

- 8.2.5.2 Market Forecast
- 8.2.6 Indonesia
 - 8.2.6.1 Market Trends
 - 8.2.6.2 Market Forecast
- 8.2.7 Others
 - 8.2.7.1 Market Trends
 - 8.2.7.2 Market Forecast
- 8.3 Europe
 - 8.3.1 Germany
 - 8.3.1.1 Market Trends
 - 8.3.1.2 Market Forecast
 - 8.3.2 France
 - 8.3.2.1 Market Trends
 - 8.3.2.2 Market Forecast
 - 8.3.3 United Kingdom
 - 8.3.3.1 Market Trends
 - 8.3.3.2 Market Forecast
 - 8.3.4 Italy
 - 8.3.4.1 Market Trends
 - 8.3.4.2 Market Forecast
 - 8.3.5 Spain
 - 8.3.5.1 Market Trends
 - 8.3.5.2 Market Forecast
 - 8.3.6 Russia
 - 8.3.6.1 Market Trends
 - 8.3.6.2 Market Forecast
 - 8.3.7 Others
 - 8.3.7.1 Market Trends
 - 8.3.7.2 Market Forecast
- 8.4 Latin America
 - 8.4.1 Brazil
 - 8.4.1.1 Market Trends
 - 8.4.1.2 Market Forecast
 - 8.4.2 Mexico
 - 8.4.2.1 Market Trends
 - 8.4.2.2 Market Forecast
 - 8.4.3 Others
 - 8.4.3.1 Market Trends
 - 8.4.3.2 Market Forecast

8.5 Middle East and Africa

8.5.1 Market Trends

8.5.2 Market Breakup by Country

8.5.3 Market Forecast

9 SWOT ANALYSIS

9.1 Overview

9.2 Strengths

9.3 Weaknesses

9.4 Opportunities

9.5 Threats

10 VALUE CHAIN ANALYSIS

11 PORTERS FIVE FORCES ANALYSIS

11.1 Overview

11.2 Bargaining Power of Buyers

11.3 Bargaining Power of Suppliers

11.4 Degree of Competition

11.5 Threat of New Entrants

11.6 Threat of Substitutes

12 PRICE ANALYSIS

13 COMPETITIVE LANDSCAPE

13.1 Market Structure

13.2 Key Players

13.3 Profiles of Key Players

13.3.1 3D Systems Inc.

13.3.1.1 Company Overview

13.3.1.2 Product Portfolio

13.3.2 EOS GmbH Electro Optical Systems

13.3.2.1 Company Overview

13.3.2.2 Product Portfolio

13.3.2.3 SWOT Analysis

13.3.3 Farsoon Americas Corp

- 13.3.3.1 Company Overview
- 13.3.3.2 Product Portfolio
- 13.3.4 Fathom Manufacturing
 - 13.3.4.1 Company Overview
 - 13.3.4.2 Product Portfolio
- 13.3.5 Formlabs Inc.
 - 13.3.5.1 Company Overview
 - 13.3.5.2 Product Portfolio
- 13.3.6 Nexa3d Inc.
 - 13.3.6.1 Company Overview
 - 13.3.6.2 Product Portfolio
- 13.3.7 Prodways Group
 - 13.3.7.1 Company Overview
 - 13.3.7.2 Product Portfolio
 - 13.3.7.3 Financials
- 13.3.8 Renishaw plc
 - 13.3.8.1 Company Overview
 - 13.3.8.2 Product Portfolio
 - 13.3.8.3 Financials
- 13.3.9 Ricoh Company Ltd.
 - 13.3.9.1 Company Overview
 - 13.3.9.2 Product Portfolio
 - 13.3.9.3 Financials
 - 13.3.9.4 SWOT Analysis
- 13.3.10 Sharebot S.r.l.
 - 13.3.10.1 Company Overview
 - 13.3.10.2 Product Portfolio
- 13.3.11 Sinterit sp. z o.o
 - 13.3.11.1 Company Overview
 - 13.3.11.2 Product Portfolio
- 13.3.12 Sintratec AG
 - 13.3.12.1 Company Overview
 - 13.3.12.2 Product Portfolio

I would like to order

Product name: Selective Laser Sintering Market Report by Type (Metal, Plastic), Application (Automotive, Aerospace, Defense, and Others), and Region 2024-2032

Product link: <https://marketpublishers.com/r/SE08145D9E26EN.html>

Price: US\$ 3,899.00 (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/SE08145D9E26EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

****All fields are required**

Customer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970

