

# **Medical 3D Printing Plastics Market: Segmented By Type (ABS, PEEK, PETG, Photopolymer, Polyamide, Polylactic Acid): By Form (Filament, Powder, Ink and Others): Global Analysis by Market size, share & trends for 2020-2021 and forecasts to 2031**

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## **Abstracts**

[174 + Pages Research Report] Medical 3D Printing Plastics Market to surpass USD 4.02 Billion by 2031 from USD 0.93 Billion in 2021 at a CAGR of 15.63% within the coming years, i.e., 2021-31.

### **Product overview**

3D printing technology is one of the recent technologies that are set to transform the manufacturing practices across most of the areas including healthcare. It was at first developed for the purpose of making fast and cost-effective sample for the product development within industries and are called as the rapid prototyping (RP). Since then, it has been advanced and widened its uses from just creating a prototype to creation of the final product itself. Today, it is being extensively used in medical prosthetics, orthopedics, and dental implants cited to its ability to duplicate the complex human organ structure with precision.

### **Market Highlights**

Medical 3D Printing Plastics Market is predicted to project a notable CAGR of 15.63% in 2031.

The rising aging population, increasing healthcare awareness, and the COVID-19 pandemic situation are some of the major factors boosting the market for medical 3D printing plastics. The market is mainly driven by rising demand for face masks, head and shoe covers, surgical masks and gloves, personal protective gowns, and various

other products in tackling the COVID-19 pandemic condition. Besides personal protective wearables, medical 3D printing plastics are extensively used in the manufacturing of medical products, such as dental and bone implants, catheters, prosthetics, and various other medical products.

#### Medical 3D Printing Plastics Market: Segments

Photopolymer segment to grow with the highest CAGR during 2021-2031

Medical 3D Printing Plastics Market is segmented by Type into ABS, PEEK, PETG, Photopolymer, Polyamide, Polylactic Acid. Photopolymer segment reported for the major share. This is due to the high demand for catheters, drug delivery systems, hearing aids, surgical masks, medical filters, and tissue engineering and cell encapsulation systems. Photopolymer owns excellent thermo-mechanical properties, such as resistance to chemicals and high thermal accuracy, and it changes its stage from solid to liquid under ultraviolet light. These properties make it suitable for medical 3D printing uses.

Filament Segment to grow with the highest CSGR during 2021-2031

On the basis of Foam, Medical 3D Printing Plastics Market is segmented into Filament, Powder, Ink, and Others. Filament segment is reported for the highest market share of the Medical 3D Printing Plastics Market. Increasing application of medical 3D printing plastics to manufacture a high range of healthcare products, such as specialized surgical tools in reusable and single-use medical devices, is driving the segment growth. Filament form can be used in many 3D printings processes, including fused deposition modeling (FDM), stereolithography (SLA), selective laser sintering (SLS), and electron beam melting (EBM), based on the type of nozzle.

#### Medical 3D Printing Plastics Market: Market Dynamics Drivers

Increasing public-private funding for 3D printing activities

In recent decades, there has been a major increase in public-private funding to support several initiatives in the 3D printing industry. Such research and funding activities are projected to drive the development of 3D printing products and technologies, thus boosting the growth of the 3D printing medical devices market.

Direct digital manufacturing

The digitization of dentistry and medical process has advanced massively over the past years, with the intention of enhancing the clinical workflow through the incorporation of technology. The industry is experiencing a change from traditional to digital dentistry and surgeries. Direct digital manufacturing involves the use of computer-controlled processes for developing a physical object directly from a digital design. With improvements in 3D printing, direct digital manufacturing is becoming an extensively used technology as compared to traditional manufacturing techniques. It provides a unique set of benefits as it removes the investment in tooling, decreases the lag time between designing and production, and surges production.

### Restraints

#### Shortage of a skilled workforce

One of the main barriers to the implementation of additive manufacturing or 3D printing is the lack of a skilled workforce. There is a very limited supply pool available for staff that is well-versed with 3D printing processes, which is further deteriorated by the rapid pace of development of the 3D printing medical devices market in terms of technology and materials.

### Effects of COVID19 in the Medical 3D Printing Plastics Market

The pandemic has led to a significant upsurge in the demand for ventilators. The end of manufacturing facilities owing to lockdowns and disrupted supply chains slightly obstructed the growth of the 3D Printing Medical Devices market at the regional level in 2020. Prominent vendors such as Stratasys Ltd supported the amplified demand and mitigated key shortages of nasopharyngeal swabs and face shields. The company produced field-ready, individually packaged, sterile 3D-printed nasopharyngeal swabs and face shields.

### Medical 3D Printing Plastics Market: Key Players

3D Systems, Inc.

Company Overview, Business Strategy, Key Product Offerings, Financial Performance, Key Performance Indicators, Risk Analysis, Recent Development, Regional Presence, SWOT Analysis

Apium Additive Technologies GmbH

Arkema

DSM

ENVISIONTEC, INC.

Evonik Industries AG

SABIC

Solvay

Stratasys Ltd.

Victrex plc

Other prominent players

Medical 3D Printing Plastics Market: Regions

Medical 3D Printing Plastics Market is segmented based on regional analysis into five major regions: North America, Latin America, Europe, Asia Pacific, and the Middle East and Africa. North America dominates the Medical 3D Printing Plastics Market. This is due to several factors such as growing awareness among the consumers, increasing healthcare expenditure, and rising demand for disposable plastics. Asia-Pacific is witnessed to be the second-largest market in the global Medical 3D Printing Plastics market.

Medical 3D Printing Plastics Market is further segmented by region into:

North America Market Size, Share Trends, Opportunities, Y-o-Y Growth, CAGR-United States and Canada

Latin America Market Size, Share Trends, Opportunities, Y-o-Y Growth, CAGR-Mexico, Argentina, Brazil, and Rest of Latin America

Europe Market Size, Share Trends, Opportunities, Y-o-Y Growth, CAGR- United Kingdom, France, Germany, Italy, Spain, Belgium, Hungary Luxembourg, Netherlands, Poland, NORDIC, Russia, Turkey and Rest of Europe

Asia Pacific Market Size, Share Trends, Opportunities, Y-o-Y Growth, CAGR-India, China, South Korea, Japan, Malaysia, Indonesia, New Zealand, Australia, and Rest of APAC

Middle East and Africa Market Size, Share Trends, Opportunities, Y-o-Y Growth, CAGR – North Africa, Israel, GCC, South Africa, and Rest of MENA

Medical 3D Printing Plastics Market report also contains analysis on:

Medical 3D Printing Plastics Market Segments:

By Type

ABS

PEEK, PETG

Photopolymer

Polyamide

Polylactic Acid

By Form

Filament

Powder

Ink

Others

Medical 3D Printing Plastics Market Dynamics

Medical 3D Printing Plastics Market Size

Supply & Demand

Current Trends/Issues/Challenges

Competition & Companies Involved in the Market

Value chain of the Market

Market Drivers and Restraints

Medical 3D Printing Plastics Market Report Scope and Segmentation

Report Attribute Details

Market size value in 2021 USD 0.93 billion

Revenue forecast in 2031 USD 4.02 billion

Growth Rate CAGR of 15.63% from 2021 to 2031

Base year for estimation 2021

Quantitative units Revenue in USD million and CAGR from 2021 to 2031

Report coverage Revenue forecast, company ranking, competitive landscape, growth factors, and trends

Segments covered Type, Foam, and Region

Region scope North America; Europe; Asia Pacific; Latin America; Middle East & Africa (MEA)

Key companies profiled Apium Additive Technologies GmbH, Arkema, DSM, ENVISIONTEC, INC., Evonik Industries AG, SABIC, Solvay, Stratasys Ltd., Victrex plc

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SUBJECTED TO FURTHER MODIFICATION BASED ON IN-DEPTH FEASIBILITY  
STUDIES CONDUCTED FOR THE FINAL DELIVERABLE.**

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