



LUCINTEL INSIGHT
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FIVE TRENDS SHAPING THE FUTURE OF THE MEDICAL PLASTIC MARKET

The growth of plastics in medical devices has transformed the marketplace with plastic medical devices steadily replacing other materials like as glass, ceramics, and metals. Technologies in the medical plastic market have undergone significant changes in recent years with traditional polymers evolving to biodegradable polymers. The rising wave of new technology, particularly engineering plastics, is creating significant potential in diagnostic instruments and drug delivery

system application driving the demand for medical plastics.

The medical plastic market is divided into polyvinyl chloride, polyethylene, polypropylene, engineering plastics, polystyrene, polyester, polycarbonate, polyurethane, and acrylics. Key players of the medical plastic market like Solvay, BASF SE, Covestro AG, Evonik Industries AG, and Dow Chemical Corporation have been working on different strategies to drive sales using the most influencing marketing techniques. To achieve the best results, Lucintel has looked into the challenges and opportunities ahead in this market and recommend that companies follow key market trends and a strategy of developing engineering polymers and bioresorbable polymers. Lucintel predicts the global medical plastic market is to be valued at \$31.5 billion by 2025, with an expected CAGR of 6.7% during 2020-2025.

Lucintel reveals five trends set to influence the global medical plastic market. Most of the industry players and experts agree that these five trends will accelerate developments in the medical plastic industry in the near future. To the widespread knowledge about the medical plastic already in horizon, there is still a lack of unified perspective concerning the direction the industry is moving to proactively address developments. To help bring more clarity to this gap, our study aims to provide insights about the direction of changes and how these changes will impact the medical plastic market.

1. Growing Adoption of Engineering Polymers

Engineering polymers are increasingly becoming an alternative to metal and ceramics in medical and pharmaceutical devices; they are used in injection pens, lancing devices, inhalers, and surgical instruments. With high heat resistance and inertness, engineering polymers, like PEEK



polymers, are the ideal material for applications and devices that are in contact with human tissue and blood. PEEK polymers are not affected by most solvents, lipids, blood, or enzymes in the body. These properties make them ideal materials for long-term orthopedic implant applications like bone screws, tissue anchors, suture screws, and plates and pins. Recently, PEEK has been used to replace metal as a hip stem component.

2. Increasing Use of Polyolefins

Polyolefins are used for medical devices and pharmaceutical packaging. With the advancements in the medical device industry, polyolefins has proved to be one of the versatile materials that has been able to adapt with the dynamic nature of the medical device industry. Polyolefins have found increased use as replacements for glass (particularly vials) and for metal in the orthopedic market. Polyolefins offer an excellent material profile and cost effectiveness. They have found numerous areas of use in medical packaging, drug delivery devices, and surgical bowls.



3. Emergence of Bioresorbable Polymers

The medical polymer industry is advancing with the introduction of biologically compatible polymers known as bioresorbable polymers. These polymer materials can be safely absorbed by the body so that the materials disappear over time after serving their purpose. Bioresorbable polymers are removed



completely by the tissue, leaving behind no foreign material and hence avoiding persistent inflammatory response. Bioresorbable polymers expedite the healing process. The polymers can be either natural or synthetic in origin. They are chemically neutral in nature and decompose harmlessly in the body. These polymers are used in the areas of reinforcement meshes and tissue anchors, surgical sutures, orthopedic pins, screws, rods and plates, and cardiovascular stents.

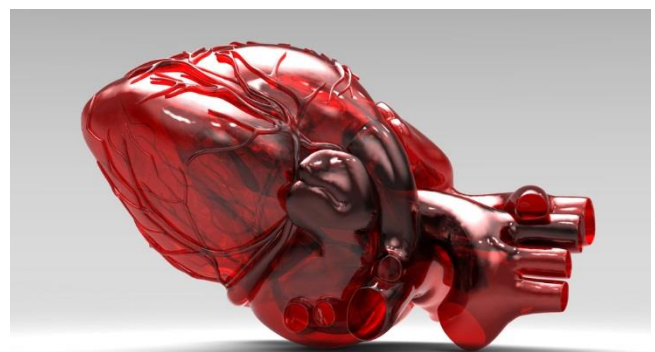
4. Growing Use of Medical Plastic due to Low Prices and Versatility

Medical plastic can be mass produced at cost effective rates for a wider range of applications making it a worthwhile investment. Since plastic can be molded to the specific requirements of any application, it is also being used to develop new medical devices. Plastics are now being used in surgical devices and procedures, and products like modern pacemakers, stents, and joint replacement devices because of its ability to adapt to the tiniest and most intricate molds.



5. Medical Plastic for Temporary Artificial Hearts

Artificial hearts made of special medical plastic are helping to extend patients' lives as they wait for heart transplants. This plastic was designed for long-term durability and has a high fatigue resistance to help ensure a patient's health and safety until an organic heart is available. This technology is

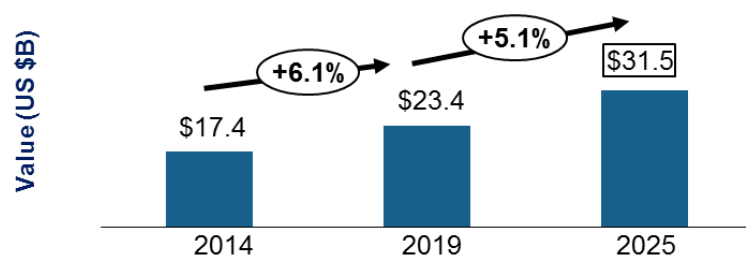


particularly important for patients whose bodies have rejected organic hearts in the past or experienced heart failure because the plastic composition is biocompatible. Therefore, a patient's body will not reject the organ or sustain further damage before receiving an organic heart.

Strategic Considerations for Key Players of the Medical Plastic Market

The medical plastic industry is dynamic and ever changing. Successful industry players are necessarily masters of innovation, change and adaptation. But to do so, they need to stay attentive to the trends underway. We believe there will be promising opportunities for medical plastic in the medical device market. As per Lucintel's latest market research report (Source: <https://www.lucintel.com/technology-landscape-trends-and-opportunities-in-medical-plastic-market.aspx>), the [medical plastic market](#) is expected to grow with a CAGR of 6.7% from 2020 to 2025 to reach \$31.5 Billion by 2025. This market is primarily driven by the increasing demand for development of patient-specific implants and 3D printed devices, increasing adoption of medical polymers due to low prices and versatility, growing healthcare investments in emerging economies, and increasing use of home healthcare and self-medication.

**Trends and Forecast for the Global Medical Plastic Market
(US \$B) (2014-2025)**



Source: Lucintel



Whether you are new to the medical plastic market or an experienced player, it is important to understand the trends that impact the development process, as these trends listed above will lead in long-term strategy formulation to remain competitive and successful in the long run. For example, to capture growth, the medical plastic market players can develop capabilities in engineering polymers. Players can also focus on development of bioresorbable polymers, which are expected to lead future trends.

Note: In order to gain better understanding, to learn the scope, benefits, companies researched and other details of the medical plastic market report from Lucintel, click on <https://www.lucintel.com/technology-landscape-trends-and-opportunities-in-medical-plastic-market.aspx>. This comprehensive report provides you in-depth analysis on market trends and forecast, segment analysis, regional analysis, competitive benchmarking and company profiling of key players. In addition, we also offer **strategic growth consulting** to meet your customized needs. We have worked with many PE firms and corporate customers in their market entry and M & A initiatives.



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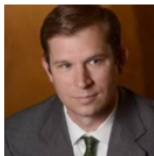


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