
Description: Over the last two years, the polymer 3D printing industry has been in a state of tumultuousness marked by dozens of new competitors entering the market, partnerships for development of materials, and development of new print technologies. All of these and more have combined to create a whirlwind market that, in spite of so much activity and investment, has struggled to maintain its growth pace from 2012 through 2014 as customers have backed off purchasing in the traditional segments while adopting a 'wait and see' strategy. The demand for additive manufacturing in general has perhaps never been higher, but challenges associated with such rapid evolution in polymer and plastic 3D printing have suppressed growth in the face of historic interest in 3D printing at a professional level.

As the global chemical and polymer suppliers of the manufacturing world move into position to exert more influence over the increasingly integrated 3D printing industry, market change appears imminent. Meanwhile, the commercialization of disruptive new print technologies such as those from Carbon, HP, Rize, and more all ensure 2017 will be a pivotal year.

Opportunities in Polymer and Plastic 3D Printing - 2017 is the third generation of the world's most comprehensive analysis of polymer 3D printing technology. In this new edition, market analysis is segmented by print technology market - as each major polymer print process settles into its own roles and established applications, our analysis has deepened to the specifics of each driving print technology and associated materials.

Utilizing purpose-built proprietary 3D printing market models, the report is able to present detailed market forecast data on thermoplastic filaments, powders, photopolymers, composites, and more utilized in popular print technologies of material extrusion (FDM, FFF), polymer powder bed fusion (SLS, Multi Jet Fusion), photopolymerization (SLA, DLP, CLIP), binder jetting, and more.

All available materials for primary polymer print technologies are analyzed and forecasted, including market revenues as well as material shipments, by industry and geography, over the next decade. Therefore, the report believes that Opportunities in Polymer and Plastic 3D Printing - 2017 will provide exceptional value to business development professionals and internal market strategy teams for the global chemical and polymer industries, as well as polymer 3D printer manufacturers, print service providers, and developers of polymer 3D printing manufacturing solutions.

Contents:

Chapter One: Review of Current Market Trends and Dynamics in Polymer 3D Printing
1.1 Segmenting the Polymer 3D Printing Market: Specialized Processes versus Manufacturing Processes
1.1.1 Material Extrusion – A Flexible and Cost Effective Process for Low- to Medium- Volume Manufacturing
1.1.2 Polymer Powder Bed Fusion – A Highly Scalable Process for Volume Manufacturing and High-Performance Parts
1.1.3 Photopolymerization – A Multifunctional Process for Mass Customization
1.1.4 Material Jetting – A Specialized Process for High-Value Multifunctional Output
1.1.5 Binder Jetting – A Specialized Process for High Volume, Large Models
1.2 Polymer 3D Printing Market in Period of Transition Through 2017
1.2.1 Ongoing Influence of Low-Cost 3D Printers in the Polymer Printing Segment
1.3 Analysis of Growth Drivers and Emerging Dynamics in Polymer Additive Manufacturing and 3D Printing
1.3.1 Markets Demand Greater Strides in Open Architecture for Professional and Industrial Polymer 3D Printers
1.3.2 Global Polymer and Chemical Providers Will Take Center Stage in Polymer 3D Printing by 2019
1.3.3 Current Go-to-Market Strategies for Polymer Print Material Developers
1.3.3.1 Development of Branded Third-Party Product Lines for Direct Sales to End Users
1.3.3.2 Sale of Feedstock or Private Label Materials to 3D OEMs or Third-Party Material Compounders and Developers
1.3.4 Market Growth Scenarios, 2017 through 2019
1.4 Major Adopters of Polymer 3D Printing Technology by Industry – Trends and Future Growth Drivers
1.4.1 Polymer 3D Printing in the Automotive Industry – Leading in Potential for Volume Manufacturing and
Prototyping
1.4.2 Medical 3D Printing a Short-Term Driver for Current Polymer Printing
1.4.3 3D Printing Increasingly Disruptive in Dentistry as a Digital Production Tool
1.4.4 Aerospace Industry Rallying Around Polymer 3D Printing for Strategic Manufacturing Solution in Aircraft Interiors
1.4.5 Balancing Expectations for Polymer 3D Printing in the Jewelry Industry Versus Direct Metal AM Production
1.5 2016 Market in Review – Setting the Stage for a Global Manufacturing Revolution?
1.5.1 Major Hardware Market Competitive Shakeup – Hewlett Packard, Carbon, Farsoon, and Prodways
1.5.2 Global Polymer and Chemical Companies Make Significant Commitments to 3D Printing in 2016/2017
1.5.3 Cincinnati Inc., Stratasys, Others Look to Revolutionize the Value Propositions of Existing Processes Through New Vision
1.6 Summary of Ten-Year Forecasts for Polymer 3D Printing Materials

Chapter Two: Opportunities for Polymer 3D Printing Hardware and Materials in Material Extrusion Technology
2.1 Global Material Extrusion Market Metrics and Landscape
2.2 Characterizing the Material Extrusion Process
2.3 Influential Applications and Major Markets for Material Extrusion 3D Printing
2.4 Opportunities in Print Materials and Polymers in Material Extrusion
2.4.1 Established Thermoplastics for Material Extrusion
2.4.1.1 Nylon/Polyamide
2.4.1.2 ABS
2.4.1.3 Other Amorphous Thermoplastics – Polycarbonate, ASA, and TPU
2.4.2 Emerging Thermoplastic Material Opportunities in Material Extrusion
2.4.2.1 Opportunities in Amorphous Thermoplastics – PVC and PEI
2.4.2.2 Opportunities in Semicrystalline Thermoplastics – PAEK Polymers, Polyethylene, and Polypropylene
2.4.2.3 Thermoplastic Composites Utilizing Material Extrusion
2.5 Major Players and Influencers in the Material Extrusion Segment – Materials and Hardware
2.5.1 Stratasys
2.5.2 TierTime
2.5.3 Arburg
2.5.3 Bolson Materials/Argyle Materials
2.5.4 taulman3D
2.5.5 SABIC
2.5.6 Cincinnati Incorporated

Chapter Three: Opportunities for Polymer 3D Printing Hardware and Materials in Powder Bed Fusion Technology
3.1 Global Powder Bed Fusion Market Metrics and Landscape
3.2 Characterizing Polymer Powder Bed Fusion Technology
3.3 Influential Applications and Major Markets for Powder Bed Fusion 3D Printing
3.4 Opportunities in Print Materials and Polymers in Powder Bed Fusion
3.4.1 Established Powder Bed Fusion Thermoplastics and Polymers
3.4.1.1 Neat Polyamides and Composite Polyamide Materials (Nylons)
3.4.1.2 PEEK and PEKK
3.4.1.3 Polystyrene
3.4.2 Emerging Opportunities in Thermoplastics and Polymers for Powder Bed Fusion
3.4.2.1 TPU and Elastomeric Polymers
3.4.2.2 Semicrystalline Polymers – Polypropylene and Polyethylene, and High-Performance Semicrystalline Thermoplastics
3.4.2.3 Ceramics and Sand Processing Using Polymer Powder Bed Fusion Systems
3.5 Major Players and Influencers in the Powder Bed Fusion Segment – Materials and Hardware
3.5.1 3D Systems
3.5.2 EOS
3.5.3 Evonik
3.5.4 Arkema
3.5.5 Prodways and Farsoon (including ExcelTec)
3.5.6 Solvay
3.5.7 Oxford Performance Materials
3.5.8 CRP Technologies
3.5.9 BASF
3.5.10 Lehmann & Voss
Chapter Four: Opportunities for Polymer 3D Printing Hardware and Materials in Photopolymerization and Material Jetting Technologies

4.1 Global Photopolymer 3D Printing Market Metrics and Landscape
4.1.1 Photopolymerization
4.1.2 Material Jetting
4.2 Photopolymerization Methods versus Material Jetting
4.3 Influential Applications and Major Markets for Photopolymer-Based 3D Printing
4.4 Opportunities in Print Materials and Polymers for Photopolymer Printing
4.4.1 Current Photopolymer Materials for Printing in Photopolymerization and Material Jetting Technologies
4.4.2 Development of Specialized Photopolymerization and Jetting Print Technologies for Printing in Established Polymer Materials
4.4.3 Development of Resins for Manufacturing Applications in End-Use Parts
4.5 Major Players and Influencers in the Photopolymer 3D Printing Segment – Materials and Hardware
4.5.1 3D Systems
4.5.2 EnvisionTEC
4.5.3 DSM Somos (Royal DSM)
4.5.4 Sartomer (Arkema)
4.5.5 DeltaMed and Prodways
4.5.6 Henkel
4.5.7 Carbon

Chapter Five: Opportunities for Polymer 3D Printing Hardware and Materials in Other and Emerging Print Technologies

5.1 Binder Jetting with Polymers – Is Polymer Binder Jetting Viable for the Future?
5.1.1 Process Characteristics and Marketplace for Polymer Binder Jetting Technology
5.1.2 Available and Future Materials for Polymer Binder Jetting
5.1.3 Notable Players for Polymer Binder Jetting and Future Outlook
5.1.3.1 Future Outlook for Binder Jetting
5.2 Lamination Based Processes – New Life in 2017 through Composite Processing
5.2.1 EnvisionTEC SLCOM1 Thermoplastic Composite 3D Printer
5.2.2 Future of Lamination-Based 3D Printing Processes
5.3 Specialized and Emerging Polymer 3D Printing Processes – Bringing Further Potential Disruption
5.3.1 Creating Enhanced 3D Printing Processes Through Hybridization

Chapter Six: Ten-Year Market Forecasts for Polymer and Plastic 3D Printing

6.1 Methodologies and Assumptions
6.2 Presentation of Key Market Metrics
6.3 Material Extrusion Market Data
6.4 Polymer Powder Bed Fusion Market Data
6.5 Photopolymer 3D Printing Technology Market Data
6.6 Binder Jetting Market Data
6.7 Industry Market Data

About the Analyst

Acronyms and Abbreviations Used In this Report

List of Exhibits
Exhibit 1-1: Polymer 3D Print Process and Material Market Segmentation
Exhibit 1-2: Summary of Polymer 3D Printing Market Segments in Hardware and Materials
Exhibit 1-3: Total Historic and Estimated Polymer 3D Printer Unit Sales, by Product Class, 2014-2017
Exhibit 1-4: Year over Year Growth Comparison, Combined Hardware Shipments versus Combined Print Material Shipments, 2015-2026
Exhibit 1-5: Illustration of Go-to-Market Strategies for New Polymer 3D Print Materials
Exhibit 1-6: Visualizing Growth Scenarios in Polymer 3D Printing Technology
Exhibit 1-7: Total Projected Polymer 3D Printed Parts in Automotive, by Application Category, 2014-2026
Exhibit 1-8: Current Material Development Entities and Activities for Dental 3D Printing
Exhibit 1-9: Projected Polymer Commercial & General Aerospace Parts Printed, by Category, 2014-2024
Exhibit 1-10: Projected Market Share Analysis, Professional and Industrial Polymer 3D Printer Unit Sales, by Group, 2014-2026
Exhibit 1-11: Total Projected Extruded Thermoplastic Composite Material Opportunities, by Reinforcement and Support Type, 2014-2026
Ordering:

Order Online - http://www.researchandmarkets.com/reports/4071743/

Order by Fax - using the form below

Order by Post - print the order form below and send to

Research and Markets,
Guinness Centre,
Taylors Lane,
Dublin 8,
Ireland.
Fax Order Form
To place an order via fax simply print this form, fill in the information below and fax the completed form to 646-607-1907 (from USA) or +353-1-481-1716 (from Rest of World). If you have any questions please visit http://www.researchandmarkets.com/contact/

Order Information
Please verify that the product information is correct and select the format(s) you require.

- Web Address: http://www.researchandmarkets.com/reports/4071743/
- Office Code: SC

Product Formats
Please select the product formats and quantity you require:

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic (PDF) - Single User:</td>
<td>USD 4995</td>
</tr>
<tr>
<td>Electronic (PDF) - 1 - 5 Users:</td>
<td>USD 5995</td>
</tr>
<tr>
<td>Electronic (PDF) - Enterprisewide:</td>
<td>USD 6995</td>
</tr>
</tbody>
</table>

* The price quoted above is only valid for 30 days. Please submit your order within that time frame to avail of this price as all prices are subject to change.

Contact Information
Please enter all the information below in BLOCK CAPITALS

- Title: [ ] Mr [ ] Mrs [ ] Dr [ ] Miss [ ] Ms [ ] Prof
- First Name: ____________________________ Last Name: ____________________________
- Email Address: * ____________________________
- Job Title: ____________________________
- Organisation: ____________________________
- Address: ____________________________
- City: ____________________________
- Postal / Zip Code: ____________________________
- Country: ____________________________
- Phone Number: ____________________________
- Fax Number: ____________________________

* Please refrain from using free email accounts when ordering (e.g. Yahoo, Hotmail, AOL)
Payment Information

Please indicate the payment method you would like to use by selecting the appropriate box.

☐ Pay by credit card: You will receive an email with a link to a secure webpage to enter your credit card details.

☐ Pay by check: Please post the check, accompanied by this form, to:
Research and Markets,
Guinness Center,
Taylors Lane,
Dublin 8,
Ireland.

☐ Pay by wire transfer: Please transfer funds to:
Account number 833 130 83
Sort code 98-53-30
Swift code ULSBIE2D
IBAN number IE78ULSB98533083313083
Bank Address Ulster Bank,
27-35 Main Street,
Blackrock,
Co. Dublin,
Ireland.

If you have a Marketing Code please enter it below:

Marketing Code: ____________________________

Please note that by ordering from Research and Markets you are agreeing to our Terms and Conditions at http://www.researchandmarkets.com/info/terms.asp

Please fax this form to:
(646) 607-1907 or (646) 964-6609 - From USA
+353-1-481-1716 or +353-1-653-1571 - From Rest of World