Strategic Growth Opportunities in Thermoplastic Composites Market

PRESENTED BY
Lucintel

DATE
June, 2020
Lucintel - At a Glance

- Premier management consulting and market research firm. Founded in 1998.
- Deep global insights into major industries. Team of over 120 analysts/consultants across globe.
- Management comprised of PhDs, MBAs, and subject matter experts. Headquarter in Dallas, USA.

Conducted 500+ consulting projects across industries for 3M, Audi, Dupont, Carlyle, GE, etc.

Consulting Services

Why Lucintel

- **Trusted insights**: Reliable insights. Widely cited in Wall Street Journal, Financial Times, Forbes, etc.
- **Clients we serve**: Over 1000 clients from 70 countries – Fortune 500 companies.
- **Strategic advice**: Over 20 years of proven global strategic management consulting experience.

Industries Served

www.lucintel.com
Future of Global Thermoplastic Composites Market is Expected to Reach $15.1 Billion by 2025 with a CAGR of 2.2%

Trends and Forecast for the Global Thermoplastic Composites Market (US $B) (2014-2025)

<table>
<thead>
<tr>
<th>Year</th>
<th>Value (US $B)</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>$11.7</td>
<td>+2.7%</td>
</tr>
<tr>
<td>2019</td>
<td>$13.3</td>
<td></td>
</tr>
<tr>
<td>2025</td>
<td>$15.1</td>
<td>+2.2%</td>
</tr>
</tbody>
</table>

Source: Lucintel

Opportunities for Global TPC by End Use Industry, Material Type, Resin Type, and Reinforcement Type

- End Use Industry:
  - Transportation
  - Industrial
  - Consumer Goods
  - Construction
  - Others

- Material Type:
  - SFT
  - LFT
  - CFT
  - GMT

- Resin Type:
  - PP
  - PA
  - PBT
  - Others

- Reinforcement Type:
  - Glass Fiber
  - Carbon Fiber & Others

Top Companies:
- SABIC
- DuPont
- BASF
- DSM
- Cytec Solvay
In terms of overall opportunity, Thermoplastic Composites represents ~40% in the Global Composites Market.

Global Composites Market: 2014-2025

- **2014**: $28B, 58% Thermoset, 42% Thermoplastic
- **2019**: $33B, 60% Thermoset, 40% Thermoplastic
- **2025**: $39B, 60% Thermoset, 40% Thermoplastic

CAGR (2019-2025)

- Global Thermoset Composites Market: ~2.8%
- Global Thermoplastic Composites Market: ~2.2%

Source: Lucintel
In This Market, Transportation is the Largest End Use Industry, Whereas Glass Fiber is Largest in Reinforcement Type

<table>
<thead>
<tr>
<th>Global Thermoplastic Composites Market by End Use</th>
<th>Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td></td>
</tr>
<tr>
<td>Industrial</td>
<td></td>
</tr>
<tr>
<td>Consumer Goods</td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Global Thermoplastic Composites Market by Reinforcement Type</th>
<th>Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass Fiber</td>
<td></td>
</tr>
<tr>
<td>Carbon Fiber</td>
<td></td>
</tr>
</tbody>
</table>

CAGR (2019-25):  
- **Negative** <0%  
- **Flat** 0%-3%  
- **Growing** >3%  

Source: Lucintel
In Terms of Regions, Europe Provides the Largest Opportunity for Global Thermoplastic Composites Followed by APAC and North America

Opportunities for Global Thermoplastic Composites in following top countries are identified in this report:
- USA
- Mexico
- Canada
- Germany
- United Kingdom
- China
- Japan
- South Korea

Source: Lucintel
Ecosystem of the Global Thermoplastic Composites Market is Composed of Diverse Group of Companies

Raw Material Suppliers (Fiber and Resin)

Thermoplastic Composite Suppliers (SFT, LFT, GMT, CFT)

Molders

OEMs/End Users

Source: Lucintel
Performance Benefits and Shorter Process Cycle Time are Major Drivers of Global Thermoplastic Composites Market

<table>
<thead>
<tr>
<th>Key Drivers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Growth of End Use Industry:</strong> Increasing automotive production and growth in electricals and electronics and consumer goods market drives the thermoplastic composites market</td>
</tr>
<tr>
<td><strong>Performance Benefits:</strong> Thermoplastic composites are used in many application areas due to their performance benefits over the traditional materials, such as steel and unreinforced plastics</td>
</tr>
<tr>
<td><strong>Shorter Process Cycle Time:</strong> Shorter molding cycle times and an infinite shelf life as compared to thermosets</td>
</tr>
<tr>
<td><strong>Reforming/Remolding:</strong> Thermoplastic composite materials can be reshaped and reformed multiple times with the application of heat and pressure</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key Challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Higher Tooling Cost:</strong> Tooling cost is high in thermoplastic composites manufacturing processes due to the requirement of higher pressure</td>
</tr>
<tr>
<td><strong>COVID-19 Impact:</strong> Coronavirus (COVID-19) is having a significant impact on businesses and the economy. End use industries growth will witness negative impact in the Year 2020 due to manufacturing lockdown, and labour shortage. Hence Thermoplastic Composites market will also witness the negative growth.</td>
</tr>
</tbody>
</table>

Source: Lucintel
High Temperature SFT, PA based LFT, and Increasing use of Recycled Carbon Fiber are Some of the Emerging Trends of Thermoplastic Composites Market

Emerging Trends in Global Thermoplastic Composites Market

Trend A
Development of high temperature resistance grades of SFT with PA6 to replace high cost resin systems like PA46 and PA12

Trend B
Development and use of polyamide in LFT as well as Direct-LFT and are replacing PP for more structural applications

Trend C
Increasing use of recycled carbon fiber as CF reinforced compounds

Source: Lucintel
R&D to Increase the Mechanical Strength Thermoplastic Composites and Development of Low Cost LFT-D Provide Strategic Growth Paths

Strategic Considerations in Thermoplastic Composites Market

- Increase mechanical properties of some of the thermoplastic material to match up with superior performance provided by the competing materials
- Investments to increase competencies in advanced technologies like high temperature resistance grades SFT with PA6 to replace high cost resin system
- Research and development activities to develop low cost D-LFT for automotive application

Develop Capabilities

Alliances / In-organic Expansions

- Strategic collaborations / acquisitions to increase geographical presence in growing countries like India, China, and South East Asian countries
- Collaborative activities to develop new product and applications

Source: Lucintel
These Insights are Based on Below Market Report from Lucintel. It can help you Identify New Opportunities by Various Segments and Regions.

Click for detail: https://www.lucintel.com/thermoplastic-composites-market.aspx

Market Opportunities

<table>
<thead>
<tr>
<th>Year</th>
<th>Value (US $B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td></td>
</tr>
<tr>
<td>2022</td>
<td></td>
</tr>
<tr>
<td>2023</td>
<td></td>
</tr>
<tr>
<td>2024</td>
<td></td>
</tr>
<tr>
<td>2025</td>
<td></td>
</tr>
</tbody>
</table>

Market Segment Analysis

- End Use
- Reinforcement
- Resin
- Material
- Region

Regional Opportunities

- USA
- Canada
- Mexico
- Germany
- UK
- South Korea
- Japan
- China
- Others

Market Share Analysis

- Player 1
- Player 2
- Player 3
- Player 4
- Player 5
- Others

Note: These insights are based on recently launched Lucintel’s Report on Global Thermoplastic Composites Market, which has 150+ Page and over 100+ charts and tables. Lucintel also offers 10% free customization on above report based on your needs.
Lucintel has an Extensive Toolkit to Address Strategic Questions

### Key Questions

- Is market space / opportunity of current product offerings sufficiently robust?
- Market is focus for many: how can my company profitably differentiate?
- Based on our core skills, where should we focus?
- Should we build or buy? Is build even an option?
- What game changer actions exist and/or is a more incremental approach best?
- What is the order sequence of market entry segments / products?
Contact Us

Sanjay Mazumdar, Ph.D.
CEO, Author, & Strategist
Email: sanjay.mazumdar@lucintel.com

Eric Dahl, MBA, Harvard University
Senior Executive Advisor
Email: eric.dahl@lucintel.com

Brandon Fitzgerald
Director of Client Engagement
Email: brandon.fitzgerald@lucintel.com

Nigel O’Dea
Business Development Manager
Email: nigel.odea@lucintel.com