Strategic Growth Opportunities in Low Density SMC Market

PRESENTED BY
Lucintel

DATE
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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.

<table>
<thead>
<tr>
<th>Consulting Services</th>
<th>Why Lucintel</th>
<th>Industries Served</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market entry strategy</td>
<td>Clients we serve: Over 1000 clients from 70 countries – Fortune 500 companies</td>
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<tr>
<td>Supply chain analysis</td>
<td>Strategic advice: Over 20 years of proven global strategic management consulting experience</td>
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<td>Growth finance</td>
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Future of Global Low Density SMC Market Looks Promising with a CAGR of 7.4% by 2025


<table>
<thead>
<tr>
<th>Year</th>
<th>Value (US $M)</th>
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<tbody>
<tr>
<td>2014</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td></td>
</tr>
<tr>
<td>2025</td>
<td></td>
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Source: Lucintel

Top Companies
- Polynyl
- CSP
- CMT
- Menzolit
- IDI Composites

Opportunities for Global Low Density SMC by Various Application, Fiber Type, and Resin Type

<table>
<thead>
<tr>
<th>Application</th>
<th>Fiber Type</th>
<th>Resin Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deck Lid</td>
<td>Glass Fiber</td>
<td>Polyester</td>
</tr>
<tr>
<td>Fender</td>
<td>Carbon Fiber</td>
<td>Vinyl ester</td>
</tr>
<tr>
<td>Bumper</td>
<td></td>
<td>Epoxy</td>
</tr>
<tr>
<td>Hood</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Body Panel and Others</td>
<td></td>
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In terms of Overall Opportunity, Low Density SMC Represents ~14% of the Global SMC Market


CAGR (2019-2025)

- Global Low Density SMC Market: ~7.4%
- Other SMC Market: ~2.3%

Note: Global SMC includes Low and High Density SMC Market

Source: Lucintel
Evolution: Low Density SMC Opportunities have Evolved through Number of Stages from Standard SMC to LOW Density SMC Which Provides 50% Weight Reduction

- **First SMC material was introduced in 1960.**
- **In 1972, Chrysler station wagon has manufactured rear air deflector by using SMC.**
- Corvette body panel was manufactured by SMC in 1972.
- **Use of SMC to Reduce Weight in Automotive Industry**
- **Nano-Lite SMC**
  - In 2007, Core Molding Technologies introduced Nano-Lite® SMC, which is a low density SMC used for vehicle body panels.
- **Ultra Low Density SMC**
  - In 2013, Core Molding Technologies introduced Ultra low density SMC with high surface quality and 17% lower in density than previous low density SMC and 3% lower than standard SMC.
  - In 2011, Core Molding has developed low density SMC with lower in density than standard SMC.
- **TCA (Tough Class A) Ultra Light SMC**
  - In 2015, Continental Structural Plastic formulated and molded TCA ultralight SMC which reduced the weight of the body panel by 9 Kg of Chevrolet Corvette sports car.

Source: Lucintel

www.lucintel.com
In this market, Hood is the largest application of Global Low Density SMC, whereas Glass Fiber is largest in Fiber Type.

### Global Low Density SMC Market by Application

<table>
<thead>
<tr>
<th>Application</th>
<th>Growth Rate</th>
</tr>
</thead>
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<tr>
<td>Hood</td>
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### Global Low Density SMC Market by Fiber Type

<table>
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<th>Fiber Type</th>
<th>Growth Rate</th>
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<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, North America Provides the Largest Opportunity for Global Low Density SMC Followed by Europe and APAC

Source: Lucintel
Most of LD-SMC Manufacturers are Forward Integrated in the Ecosystem of the Low Density SMC Market

<table>
<thead>
<tr>
<th>Raw Material Suppliers (Fiber and Resin Suppliers)</th>
<th>LD-SMC Manufacturers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owens Corning, Nippon Electric Glass, Johns Manville</td>
<td>CORE, Continental Structural Plastics</td>
</tr>
<tr>
<td>CTG, Polynyl Composites, IANOS</td>
<td>Composites International, Reichhold</td>
</tr>
<tr>
<td>AOC, Aliancys</td>
<td>PREMIX</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part Manufacturers</th>
<th>End Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continental Structural Plastics, CORE, Menzolit</td>
<td>BMW, GM, Lincoln, Honda</td>
</tr>
<tr>
<td>MAGNA, Menzolit</td>
<td>Fiat, VW</td>
</tr>
</tbody>
</table>

Source: Lucintel
Increase Automotive Production and Reduction in Manufacturing Complexity are the Major Drivers in This Market

**Key Drivers**

- **Increasing Automotive Production and Government Mandates for Fuel Economy:** Increasing automotive production in US, and Asia Pacific Region and growing demand for lightweight materials by the Auto OEMs to achieve fuel efficiency and to reduce green house gas emissions.

- **Reduce Manufacturing Complexity:** SMC offers easy molding process through compression

- **Performance Benefits:** Low density SMC offers weight savings and chemical & corrosion resistance over traditional materials

**Key Challenges**

- **Costlier:** Low density SMC is costlier than conventional SMC material as well as metals.

- **COVID 19 Impact:** Coronavirus (COVID-19) is having a significant impact on businesses and the economy. Industry growth will witness negative impact in the Year 2020 due to manufacturing lockdown, and labour shortage. It is expected that market will recover from the year 2021.

Source: Lucintel
Development of Low Density SMC for Automotive Structural Applications and Ultra Low Density Class A Parts are Some of the Emerging Trends in the Global Low Density SMC Market

Source: Lucintel
Developing Capabilities in the Manufacturing of Low Density SMC for Structural Parts Provides Strategic Growth Path

Strategic Considerations in Low Density SMC Market

- Players of Global Low Density SMC can focus to develop low density SMC for structural parts
- Investments to increase competencies in advanced technologies like ultra low density SMC class A parts
- Research and development activities to develop cheaper low density SMC

Develop Capabilities

Alliances / In-organic Expansions

- Strategic collaborations / acquisitions to increase geographical presence in growing countries such as China and India
- Develop alliances to penetrate in new applications of construction and consumer goods industry

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/low-density-smc-market.aspx

Market Opportunities

|--------------|------|------|------|------|------|------|------|------|------|------|------|------|

Market Segment Analysis

- Application
- Fiber
- Resin
- Region

Regional Opportunities

- Europe
- North America
- APAC
- ROW

Market Share Analysis

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

Other Coverage in Report

- New Product Development
- Company Expansion
- Merger Acquisitions & JV
- Company Profiling

Note: These insights are based on recently launched Lucintel’s Report on Global Low Density SMC 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?
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