2015 European BIW Automotive Adhesives Product Leadership Award
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Background and Company Performance

Industry Challenges

As sustainable vehicle design today significantly impacts the operations of original equipment manufacturers (OEMs), automotive adhesives are increasingly adopted in automotive construction. OEMs are looking for solutions that can improve stiffness, crash durability and fatigue performance. Automotive adhesive perfectly addresses the market’s needs, as these adhesives provide high reliability in laminating, bonding, and assembling components of automotive interiors.

Automotive adhesives are extensively adopted in the body in white (BIW) applications. BIW is the stage in a vehicle manufacturing process when the main frame of a vehicle is produced. OEMs actively adopt aluminum and other composites in the BIW stage that leads to the increasing role of BIW automotive adhesives.

OEMs’ higher fuel economy standards lead to significant dynamics in BIW construction from steel elements to lightweight components such as aluminum, carbon fiber–reinforced polymer (CFRP), magnesium, and other composites. Vehicle light-weighting is one of the significant challenges for the automotive industry. Thus, adhesive manufacturers need to maintain a broad product portfolio to bond specific substrate combinations. Adhesives must accommodate substrates’ thermal expansion and erosion, and produce bonds that are as strong as traditional welds.

Automakers have moved away from off-the-shelf adhesives and now demand tailored solutions for their unique bonding requirements. In turn, they look for adhesives clearly differentiated from the competition and can easily be integrated into their production process. Customizing bonding solutions allow adhesive manufacturers to retain customers more effectively and demand higher margins. Therefore, adhesive manufacturers work closely with automakers to intensify research and development (R&D) efforts to develop customized bonding solutions and monitor OEM weight-reduction efforts to develop products that align with needs. Thus, one of the most important issues for adhesive manufacturers is to maintain cost-efficiency in addition to increasing OEMs’ awareness about attributes of BIW adhesive products and the reduction in overall process costs because of fewer welds.

Frost & Sullivan expects that OEMs’ use of lightweight materials in the BIW segment will present tremendous growth opportunities for adhesive manufacturers. To capture these opportunities, manufacturers must focus on the lightweight approach and crash-resistant performance through innovation to ensure optimum adhesion between different substrates.
Product Family Attributes and Business Impact of Sika Automotive

Sika Automotive, as a part of Sika Group with more than 100 years of experience, developed into a successful global company holding leadership by providing products for bonding, sealing, damping, reinforcing, and protecting in the construction and automotive industry. Today Sika Group is a globally integrated company with more than 100 production and marketing branches in over 70 countries providing innovative products and solutions to its customers all over the world.

Enabling Vehicle Lightweight Concept

Adhesive plays an important role in automotive construction for aesthetics and performance. Today automotive adhesives have a key impact on weight reduction approach. The lightweight concept is a crucial trend for the automotive industry and a great opportunity for automotive adhesives suppliers to provide superior solutions for the OEMs. To respond to this challenge, Sika Automotive stays closer to the market and using its technical knowledge and experience continues to develop innovative products to fulfill the newest customers’ requirements.

As reducing vehicle weight becomes a key goal in vehicle design, OEMs use aluminum and other composite components in the BIW stage. These components are welded or riveted together to form the main frame of a vehicle that is then sent for painting before the installing the engine and other interior components. However, creating a lighter body structure often results in increased interior noise and vibration issues and decreased structural integrity in crash situations. Thus, OEMs are trying to replace mechanical fasteners and welds with adhesives, which reduce vehicle weight and provide crash-resistant performance, enhancing safety and comfort. Today Sika Automotive offers automotive manufacturers a complete range of innovative products and system solutions for crash durable, sealing, and structural applications.

Best-in-Class Efficiency of SikaPower® and SikaSeal®

Vehicle weight reduction is a complex challenge. Using the newest technology, Sika provides two flagship BIW automotive adhesive products that enable an effective solution for each particular challenge. SikaPower® and SikaSeal® are the most efficient BIW adhesives in the market. According to Sika, its products achieve an average of 150
kilograms of potential weight reduction per car (up to 10%).

SikaPower® adhesives are one component, epoxy-based, bulk hybrid that cure by the temperature influence of electro-coat ovens. The SikaPower® product portfolio includes crash durable, structural, and e-coatable adhesives. All SikaPower® adhesives are available with or without glass spheres, which are important to keep a required bond line distance between two metal sheets and to control the gaps. SikaPower® is ideal for bonding similar and multi-material substrates1. This adhesive is extremely age-resistant and highly durable with outstanding mechanical and processing properties. SikaPower® requires 5 billion fewer weld points each year—demonstrating the adhesives’ efficiency.

**Application of SikaSeal®**

SikaSeal® has a unique and special performance property as it prevents bond line read through. SikaSeal® is mainly used for mastic and anti-flutter applications. The adhesive allows the usage of thinner metals, thus, providing significant weight savings. SikaSeal® adheres on different steel and aluminum grades, as well as, reduces energy demand in the plants.

SikaPower® and SikaSeal® play a crucial role in improving vehicle lightweight design and make major contributions to crash-resistant behavior, and at the same time improve comfort and durability. Sika products also enable better use of vehicle’s functional units such engine power and breaking system, as well as, reduce fuel consumption. All these unique features allow Sika Automotive to achieve significant results in over 25 million cars worldwide each year that utilize SikaPower® and SikaSeal® technology inside.

**Creating Awareness and Reliable Customer Service as a Key to Successful Operation**

Sika Automotive maintains the highest quality standards with its products and provides excellent service. Sika’s commitment to innovation satisfies customers’ demands and anticipates future expectations. All Sika solutions are designed with the customers’ success in mind to build long-lasting relationships. Sika Automotive works closely with its customers, listens to their concerns, responds to their needs, and looks for opportunities for better performance.

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Today Sika creates conditions for the mutually beneficial cooperation of all market participants—from global companies to private partners. Investment in the training of customers paves the way for introducing new, more efficient technologies and improves market penetration.

Market success depends not only on product quality, but also on the company’s ability to work with the clients and meet their expectations. “Customers First” is Sika’s key principle to exceed customers’ expectations and maximize benefits. Sika’s global network customer service branches are ideally located to ensure direct local support to global customer’s needs. The company tries to provide the best customer performance advising its customers how to correctly use Sika’s products, without wasting their time and money.

Sika’s commitment to success and continuous development is primarily focused on the improvement of its service to each customer and partner: competent staff, professional technical advice, quality of products and solutions, geographic proximity, and the whole range of services from delivery to installation—all of these factors allow the company to take a tailored approach to each customer.

Growth Potential

Sika believes that to become market leader, the company has to follow all the automotive market trends and needs. The company systematically leverages the growth potential in its target markets. Sika draws on its innovative power, for instance, to meet the rising demand for efficient BIW automotive adhesive solutions.

The company expects its growth will result from innovation and depends on further research. Thus, Sika pays significant attention to R&D. Sika’s worldwide network of 20 R&D centers includes 6 sites dedicated to the development of automotive products and technologies, gathering 1,200 R&D team members mostly with advanced university degrees. Sika’s total spending on R&D in 2014 totaled CHF 167.7 million, equivalent to 3.0% of sales.

As globalization proceeds, the ability to deliver comprehensive integral solutions for global customers and address large-scale projects is a decisive success factor. Besides West Europe and North America, Sika Automotive concentrates on further development in Asia, Middle East, Eastern Europe, and Latin America. The company relies on effective solutions for early market development to capitalize on the momentum in these rapidly growing markets—where the potential for further growth is still not exhausted.

Sika’s sustainable development with a continuous process of optimization, adaptation to customer needs, and innovation enables Sika’s triangular trademark to be globally recognized as the synonymous with best-in-class quality, innovation, and service.

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Conclusion

As OEMs actively adopt aluminum and other composites in the body in white (BIW) stage of vehicle construction, weight reduction, and precise crash-resistance become a significant issue for BIW automotive adhesives market. Responding to these challenges, Sika Automotive provides its high-quality SikaPower® and SikaSeal®—the most efficient BIW automotive adhesives offered in the market. The range of innovative solutions by Sika Automotive enables efficiency, safety, and comfort to its customers. The company promptly responds to the challenges of the growing market through its continual development, providing best-in-class quality, and effective customer support.

For providing best quality products for BIW automotive adhesives and ensuring valuable customer service, Sika earns Frost & Sullivan’s 2015 Europe Product Leadership Award in BIW automotive adhesives industry.
Significance of Product Leadership

Ultimately, growth in any organization depends upon customers purchasing from your company, and then making the decision to return time and again. A comprehensive product line, filled with high-quality, value-driven options, is the key to building an engaged customer base. To achieve and maintain product excellence, an organization must strive to be best-in-class in three key areas: understanding demand, nurturing the brand, and differentiating from the competition.

Understanding Product Leadership

Demand forecasting, branding, and differentiation all play a critical role in finding growth opportunities for your product line. This three-fold focus, however, must be complemented by an equally rigorous focus on pursuing those opportunities to a best-in-class standard. Customer communications, customer feedback, pricing, and competitor actions must all be managed and monitored for ongoing success. If an organization can successfully parlay product excellence into positive business impact, increased market share will inevitably follow over time.
Key Benchmarking Criteria

For the Product Leadership Award, Frost & Sullivan analysts independently evaluated two key factors—Product Family Attributes and Business Impact—according to the criteria identified below.

**Product Family Attributes**
- Criterion 1: Match to Needs
- Criterion 2: Reliability and Quality
- Criterion 3: Product/Service Value
- Criterion 4: Positioning
- Criterion 5: Design

**Business Impact**
- Criterion 1: Financial Performance
- Criterion 2: Customer Acquisition
- Criterion 3: Operational Efficiency
- Criterion 4: Growth Potential
- Criterion 5: Human Capital

*The Intersection between 360-Degree Research and Best Practices Awards*

**Research Methodology**

Frost & Sullivan’s 360-degree research methodology represents the analytical rigor of our research process. It offers a 360-degree-view of industry challenges, trends, and issues by integrating all 7 of Frost & Sullivan’s research methodologies. Too often, companies make important growth decisions based on a narrow understanding of their environment, leading to errors of both omission and commission. Successful growth strategies are founded on a thorough understanding of market, technical, economic, financial, customer, best practices, and demographic analyses. The integration of these research disciplines into the 360-degree research methodology provides an evaluation platform for benchmarking industry players and for identifying those performing at best-in-class levels.
Best Practices Recognition: 10 Steps to Researching, Identifying, and Recognizing Best Practices

Frost & Sullivan Awards follow a 10-step process to evaluate award candidates and assess their fit with select best practice criteria. The reputation and integrity of the Awards are based on close adherence to this process.

<table>
<thead>
<tr>
<th>STEP</th>
<th>OBJECTIVE</th>
<th>KEY ACTIVITIES</th>
<th>OUTPUT</th>
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</thead>
<tbody>
<tr>
<td>1. Monitor, target, and screen</td>
<td>Identify award recipient candidates from around the globe</td>
<td>• Conduct in-depth industry research  • Identify emerging sectors  • Scan multiple geographies</td>
<td>Pipeline of candidates who potentially meet all best-practice criteria</td>
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<tr>
<td>2. Perform 360-degree research</td>
<td>Perform comprehensive, 360-degree research on all candidates in the pipeline</td>
<td>• Interview thought leaders and industry practitioners  • Assess candidates’ fit with best-practice criteria  • Rank all candidates</td>
<td>Matrix positioning all candidates’ performance relative to one another</td>
</tr>
<tr>
<td>3. Invite thought leadership in best practices</td>
<td>Perform in-depth examination of all candidates</td>
<td>• Confirm best-practice criteria  • Examine eligibility of all candidates  • Identify any information gaps</td>
<td>Detailed profiles of all ranked candidates</td>
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<tr>
<td>4. Initiate research director review</td>
<td>Conduct an unbiased evaluation of all candidate profiles</td>
<td>• Brainstorm ranking options  • Invite multiple perspectives on candidates’ performance  • Update candidate profiles</td>
<td>Final prioritization of all eligible candidates and companion best-practice positioning paper</td>
</tr>
<tr>
<td>5. Assemble panel of industry experts</td>
<td>Present findings to an expert panel of industry thought leaders</td>
<td>• Share findings  • Strengthen cases for candidate eligibility  • Prioritize candidates</td>
<td>Refined list of prioritized award candidates</td>
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<tr>
<td>6. Conduct global industry review</td>
<td>Build consensus on award candidates’ eligibility</td>
<td>• Hold global team meeting to review all candidates  • Pressure-test fit with criteria  • Confirm inclusion of all eligible candidates</td>
<td>Final list of eligible award candidates, representing success stories worldwide</td>
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<td>7. Perform quality check</td>
<td>Develop official award consideration materials</td>
<td>• Perform final performance benchmarking activities  • Write nominations  • Perform quality review</td>
<td>High-quality, accurate, and creative presentation of nominees’ successes</td>
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<td>8. Reconnect with panel of industry experts</td>
<td>Finalize the selection of the best-practice award recipient</td>
<td>• Review analysis with panel  • Build consensus  • Select winner</td>
<td>Decision on which company performs best against all best-practice criteria</td>
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<td>9. Communicate recognition</td>
<td>Inform award recipient of award recognition</td>
<td>• Present award to the CEO  • Inspire the organization for continued success  • Celebrate the recipient’s performance</td>
<td>Announcement of award and plan for how recipient can use the award to enhance the brand</td>
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<tr>
<td>10. Take strategic action</td>
<td>Upon licensing, company may share award news with stakeholders and customers</td>
<td>• Coordinate media outreach  • Design a marketing plan  • Assess award’s role in future strategic planning</td>
<td>Widespread awareness of recipient’s award status among investors, media personnel, and employees</td>
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About Frost & Sullivan

Frost & Sullivan, the Growth Partnership Company, enables clients to accelerate growth and achieve best in class positions in growth, innovation and leadership. The company's Growth Partnership Service provides the CEO and the CEO's Growth Team with disciplined research and best practice models to drive the generation, evaluation and implementation of powerful growth strategies. Frost & Sullivan leverages almost 50 years of experience in partnering with Global 1000 companies, emerging businesses and the investment community from 31 offices on six continents. To join our Growth Partnership, please visit http://www.frost.com.