

Industry



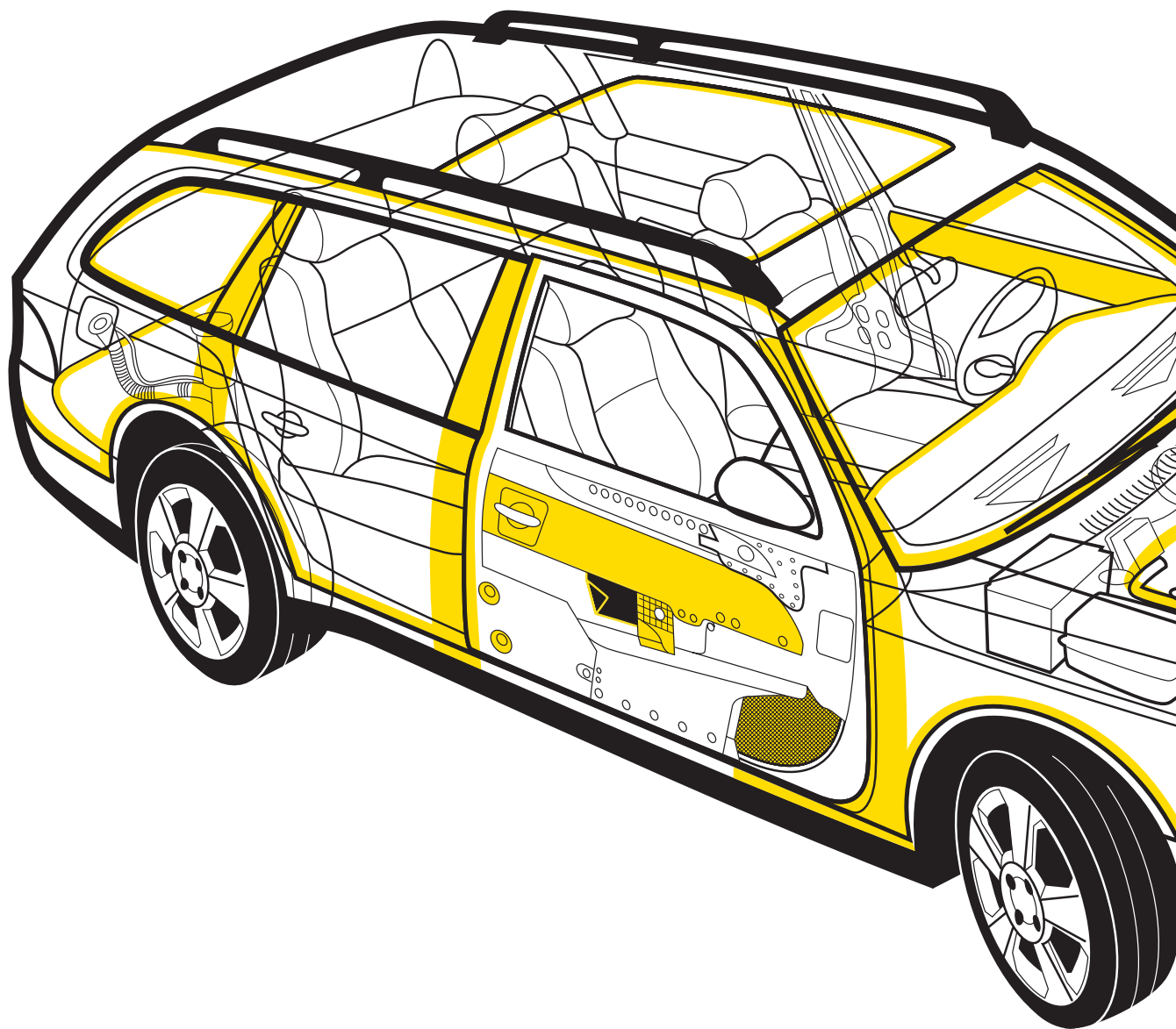
Automotive Realizing Visions



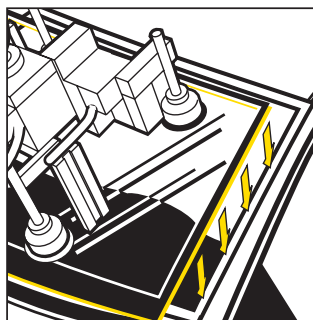
Creating Solutions for Increased Productivity

Sika is supplier and development partner to the automotive industry. Our state-of-art technologies provide solutions for increased structural performance, added acoustic comfort and improved production processes. As a specialty company for chemical products, we concentrate on our core competencies: **Bonding – Sealing – Damping – Reinforcing.**

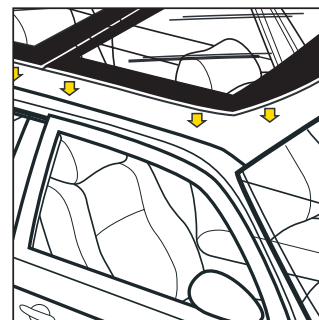
As a globally operating company, we are partner to our customers worldwide. Sika is represented with its own subsidiaries in all automobile-producing countries, thus guaranteeing a competent and fast local service.



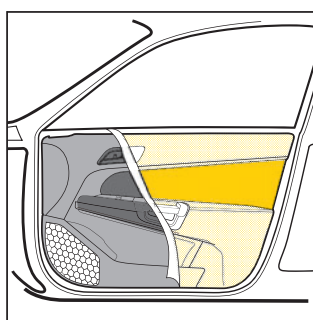
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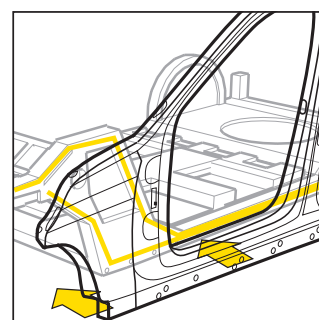
Direct Glazing_4



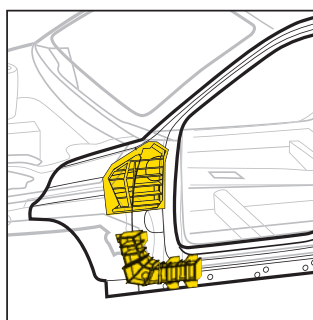
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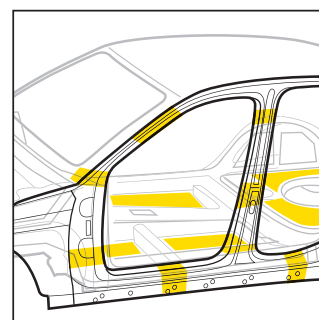
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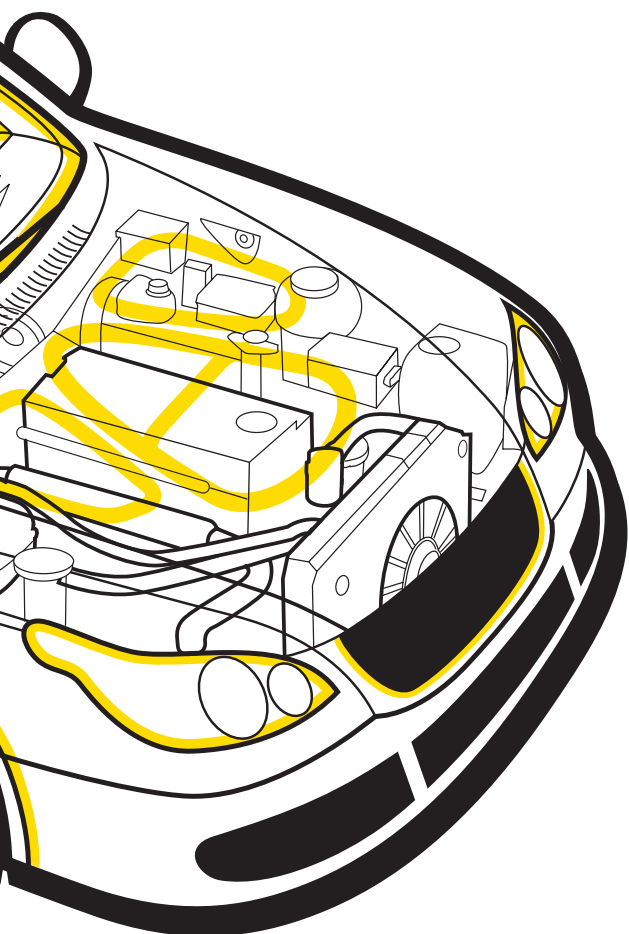
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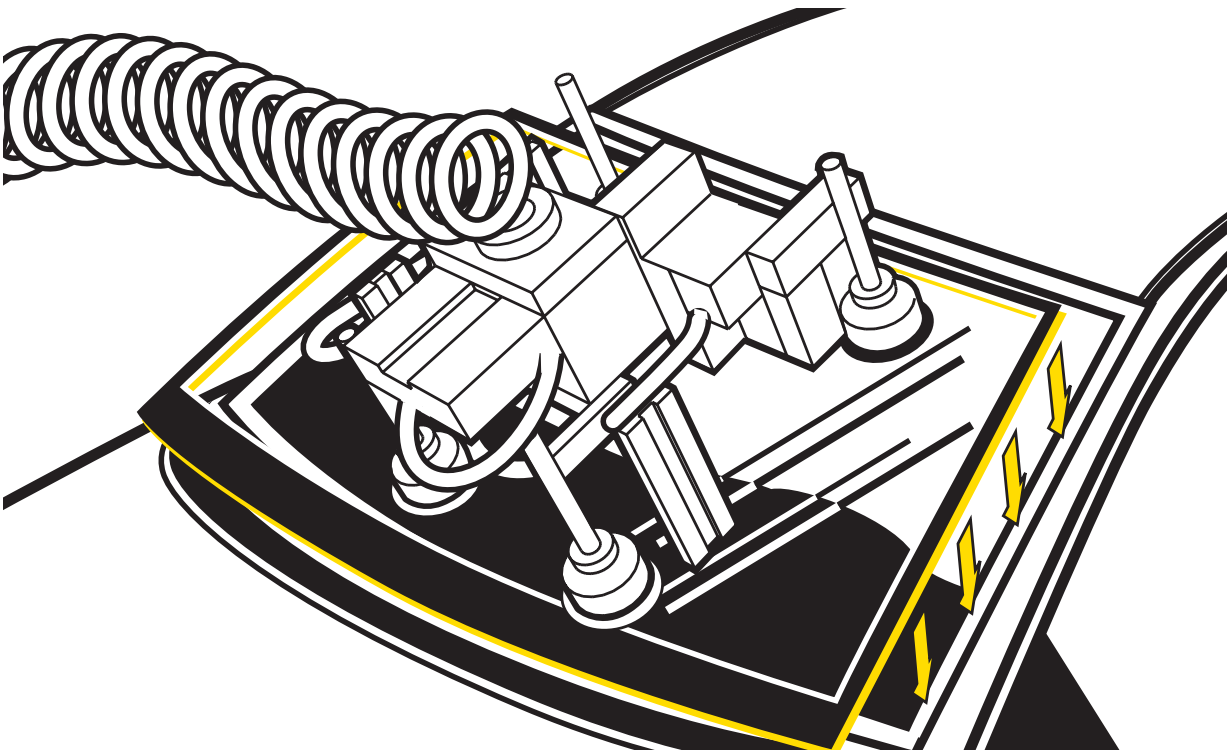
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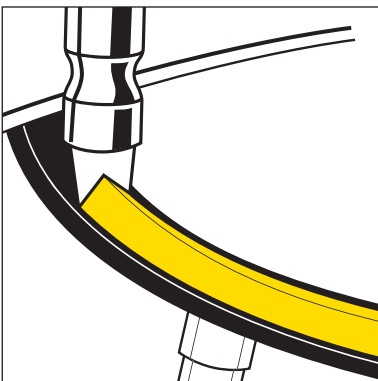
Direct Glazing

For over 20 years, Sika has been providing OEM assembly lines with adhesive and sealant solutions for sealing, bonding and direct glazing. Primerless, manual and automated pre-treatment options are available to fit the needs of a variety of OEM application processes in order to create significant cost savings and process simplification.

Sika offers pre-treatment technologies focused on eco-friendly solutions, which result in a solvent-free direct glazing process. Our solutions create **process simplification and cost efficiency** from the initial design through to the entire bonding process. **Sikaflex®** and **SikaTack®** provide a durable and long-lasting bond starting from the OEM assembly line all the way to automotive glass replacements in the aftermarket.



Direct glazing solutions for modern manufacturing



Excellent application properties with Sikaflex®

Technological Benefits

- Accelerated with booster
- Primerless to glass
- Primerless to paint
- Low-conductivity
- High initial green strength

Direct Glazing



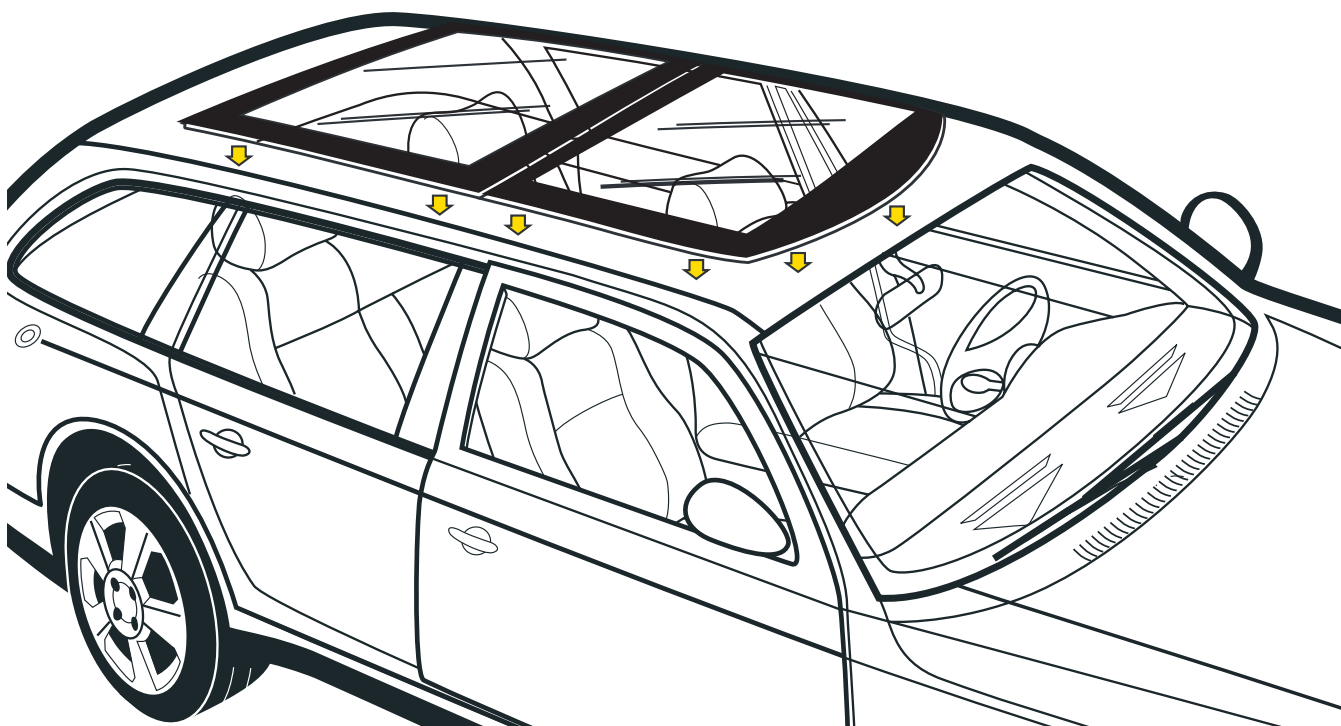
Professional repair technologies

OEM approved repair solutions with SikaTack®

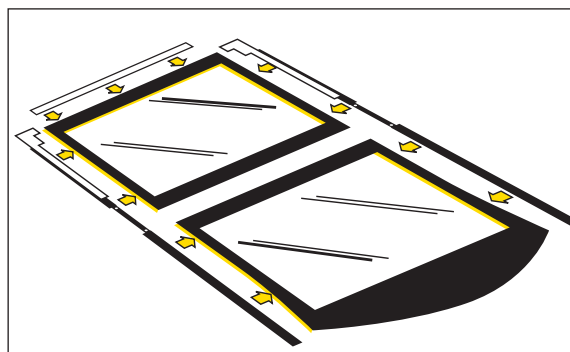
Exterior Bonding

The environment is sometimes as temperamental as a car. To survive under the harshest conditions, all necessary requirements for **strength, elasticity and high-performance** must be met, even on difficult substrates such as carbon fiber substrates or PBT.

The Sika product range for external applications in the automotive industry is an integrated system. **SikaForce®**, **SikaFast®**, **Sikaflex®** and **SikaTack® Plus** provide the ultimate solution for external applications such as spoilers, trunk lids, roof systems, headlamps and air-ducts. In addition to the structural bonding of components, Sika technologies can also be used in seam sealing and hybrid construction.



Modern roof systems are bonded using Sikaflex® and SikaForce®



Bonding technology used by sub-suppliers in modern assembly

Technological Benefits

- Wide range of properties from flexible to high-performance
- Wide bonding range to plastics, metal and glass
- Open time adjustable from seconds to hours
- Weather- and age-resistant

Exterior Bonding



Bonding and sealing of headlamp with Sikaflex®

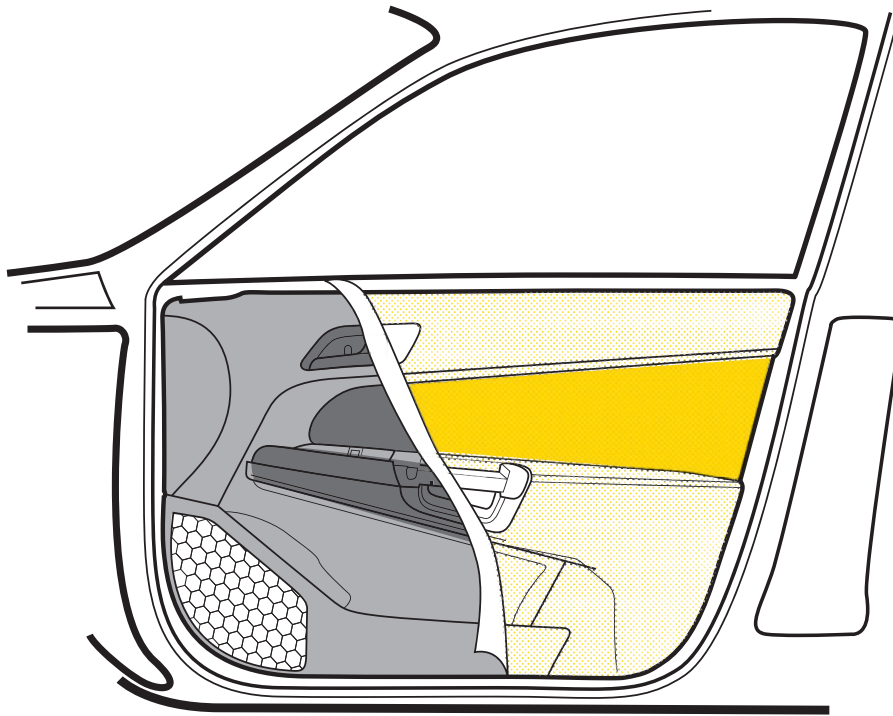


Bonding of front grill with SikaForce®

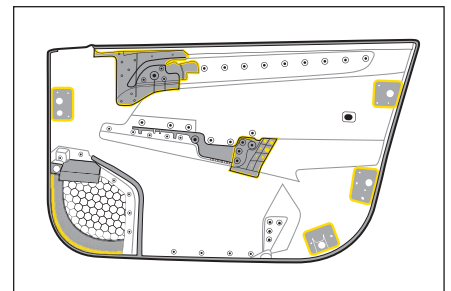
Interior Bonding

With the world changing fast, so have the needs of automotive manufacturers. In the lamination and assembly of interior bonding applications, technologies which **reduce cycle times and fulfill all strength, heat resistance and emission value requirements** while remaining **cost-effective and environmentally sound**, provide the industry with not only simplified production processes but additional solutions.

Sika has developed several hot-melt and solvent- and water-based technologies to create strong adhesion to various substrates. **SikaMelt®**, **SikaTherm®** and **SikaSense®** technologies are used in the lamination and bonding of a variety of interior applications such as retainers, door panels, carpet, trims, dashboards, headliners and consoles, in addition to several more.



Comprehensive technology for lamination and assembly bonding of car interior



Hot-melt technology used in bonding of clips and retainers

Interior Bonding

SikaMelt® offers customers a variety of solutions. Classic hot-melt technology were developed to provide the initial green strength without any pre-treatment.



SikaMelt® technology used in the bonding of load floors



Customized solutions for high-volume production

Technological Benefits

- Low application weights
- Low reactivation temperatures
- High-strength, heat-resistant bonds
- Low-fogging and emission values
- Dry cleaning resistant
- Weather- and age-resistant
- Fast-tack development
- Strong bond to PP plastic components

Interior Bonding

SikaTherm® water-based adhesives offer high-performance, one- and two-part polyurethane dispersions, which may be applied by dispensing equipment or by hand. Meeting the highest aging standards, SikaTherm® has established itself both in pressure and vacuum lamination, suitable also for leather.



Innovative technologies to meet the highest standards and specifications

Technological Benefits

- One- and two-sided adhesive application
- Low reactivation temperatures
- High-strength, heat-resistant bonds
- Low-fogging and emission values
- Short flash-off times
- Weather- and age-resistant
- Fast-tack development
- Strong bonds to a wide range of materials



Bonding of decorative parts using SikaMelt®, SikaTherm® and SikaSense®

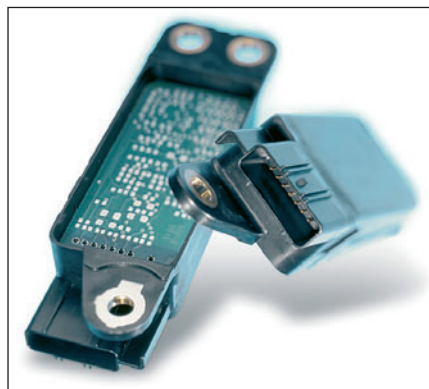
Interior Bonding

SikaSense® is a traditional solvent-based adhesive known for high-performance pressure-sensitive adhesive dispersions used for automobile tapes and sound damping solutions.



Electronic Potting

Tailor-made two-component **SikaForce®** products are especially suitable for electronic potting and sealing applications. SikaForce® technology meets exceptionally high demands in the adhesion to PBT and PA 6.6, as well as the ageing performance for components such as airbag control units, engine control units and side airbag release relays.



Electronic potting with SikaForce®

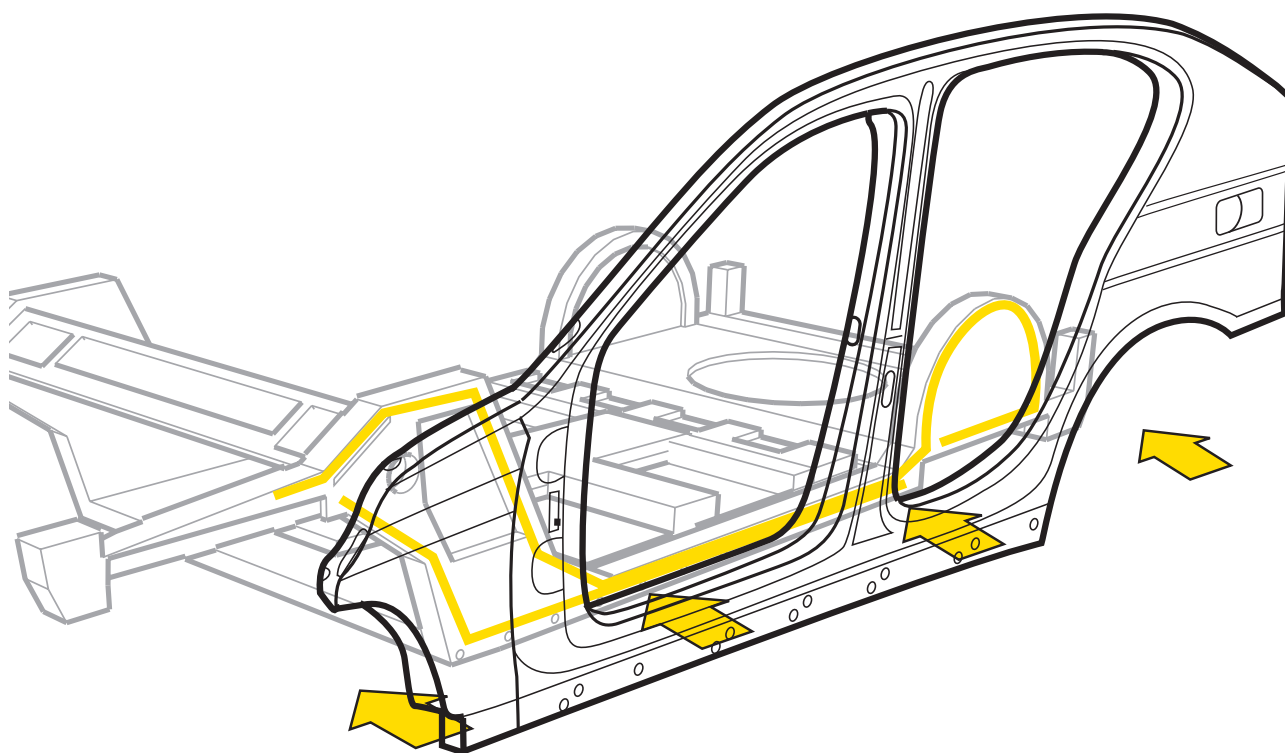
Technological Benefits

- Excellent heat and ageing resistance
- Flexible
- Strong bond
- Wide bonding range to plastics, metals and glass
- Open-time adjustability from seconds to hours

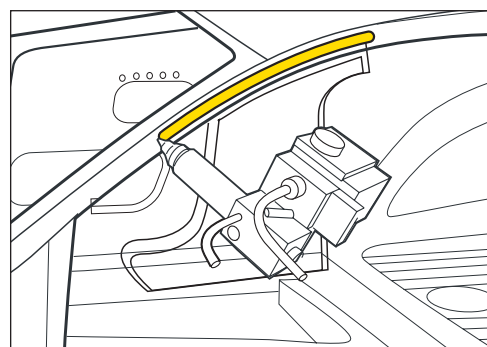
Structural Bonding & Sealing

The need for speed has never been greater than in today's world. This is also true for the car manufacturers. Structural bonding is easy to combine with other joining techniques. **Flexibility, durability and a reduction in spot welding points** are just a few of the benefits achieved by using structural bonding and sealing technology.

SikaPower® adhesives and sealants are heat-curing products based on one- and two-component PUR-epoxy hybrid technology. This technology covers a wide range of body-in-white sealants and adhesives including **anti-flutter, hem flange and structural applications, extending to crash-resistant spot-weld applications.**

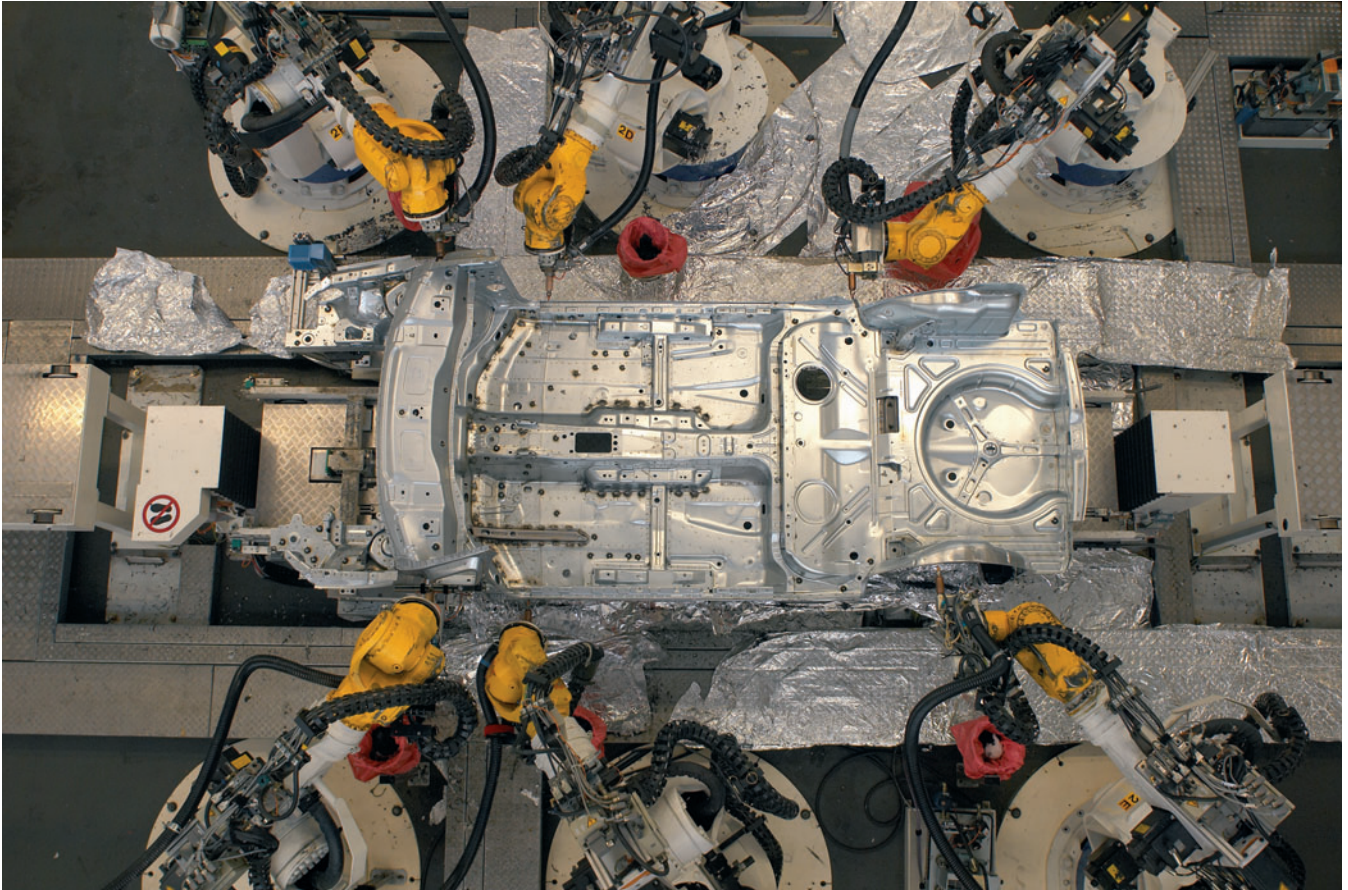


Increased vehicle stiffness through structural bonding with SikaPower®

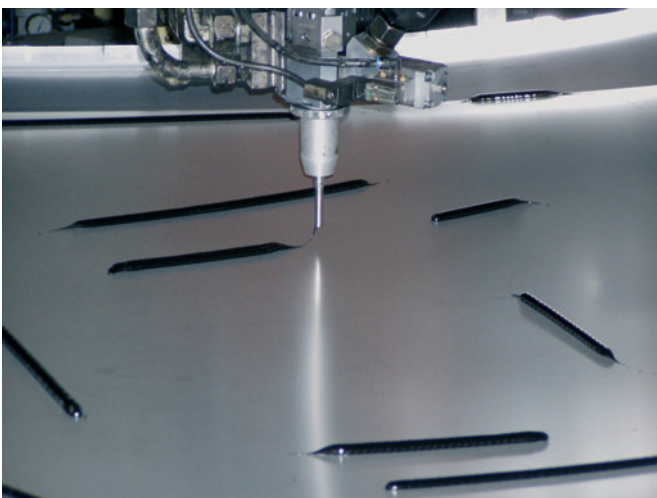


Superior automated application properties

Structural Bonding & Sealing



Enhanced manufacturing processes using SikaPower®



Anti-flutter bonding and sealing using SikaPower® 2C

Technological Benefits

- Adhesion to various oiled metals without pre-treatment
- Excellent ageing and long-term durability
- Superb wash-out resistance
- Low-bake curing to improve object temperature variations
- Solvent- and PVC-free
- 1- and 2C products

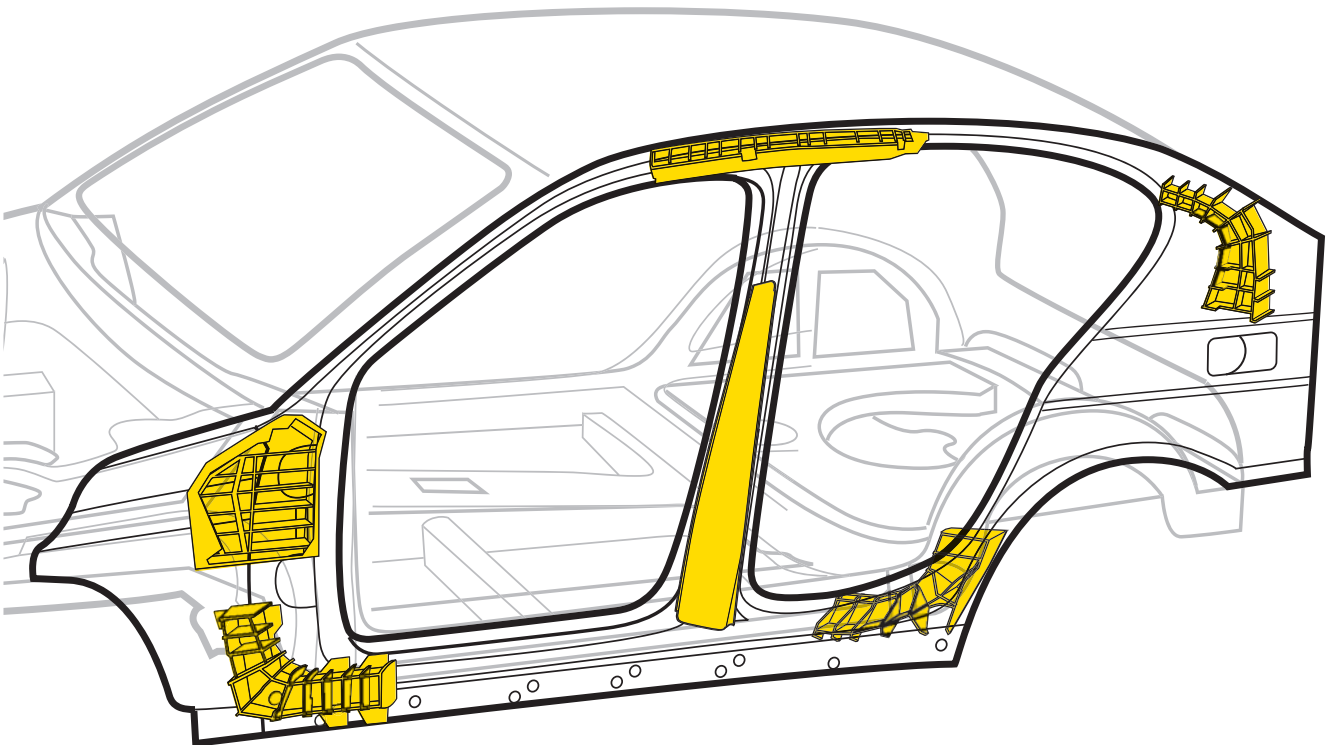
Structural Reinforcement

During the last few years customer requirements for vehicle safety in the automotive industry have continuously increased. Therefore the employment of additional structural measures to reinforce the vehicle body structure have become essential. These structural reinforcements embrace measurements which optimize crash performance, increase torsion stiffness and reduce noise and vibration in the automotive industry.

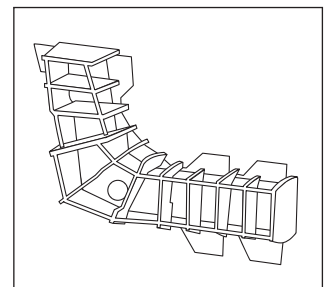
The Structural Reinforcement System consists of SikaReinforcer® and SikaStructure®. It is used to reduce vibration, enhance structural body rigidity and improve the overall crash reinforcement. SikaReinforcer® is a patented lightweight material for structural reinforcement in auto body cavities. The material is heat-reactive and suitable for injection molding. SikaStructure® is a patented engineered plastic component, suitable for injection molding and allows the design of complex three-dimensional components. It is preferably used in conjunction with SikaReinforcer®.

Technological Benefits

- Localized structural strengthening of car body shell
- Optimized dissipation of crash impact
- Enhanced body rigidity and torsional stiffness
- Noise and vibration reduction
- Reduction in overall weight of body shell

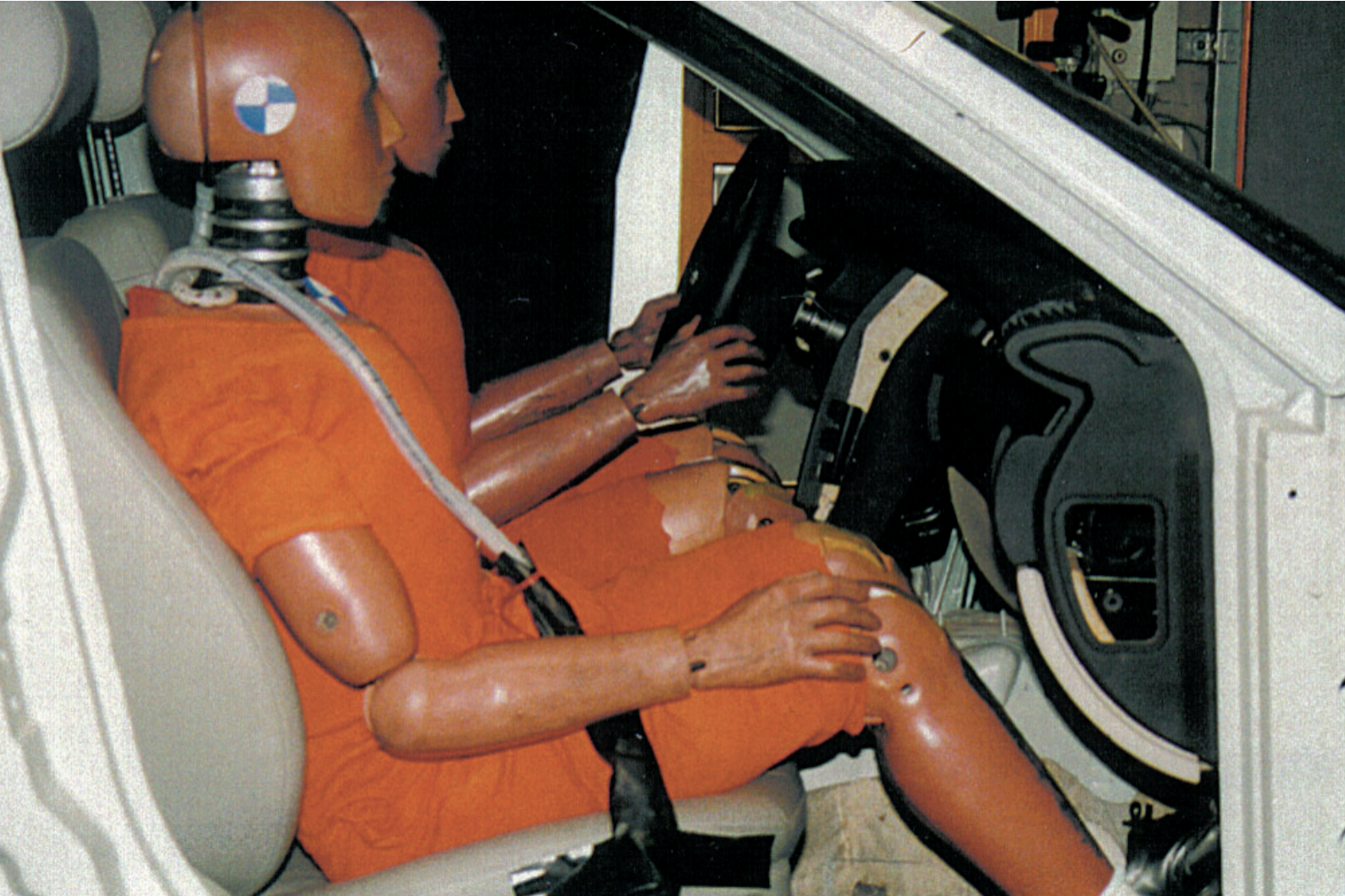


Reinforcement solutions used in strengthening of the car body structure

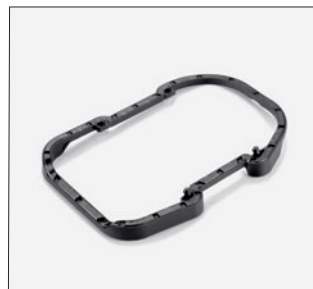


Customized design solutions

Structural Reinforcement



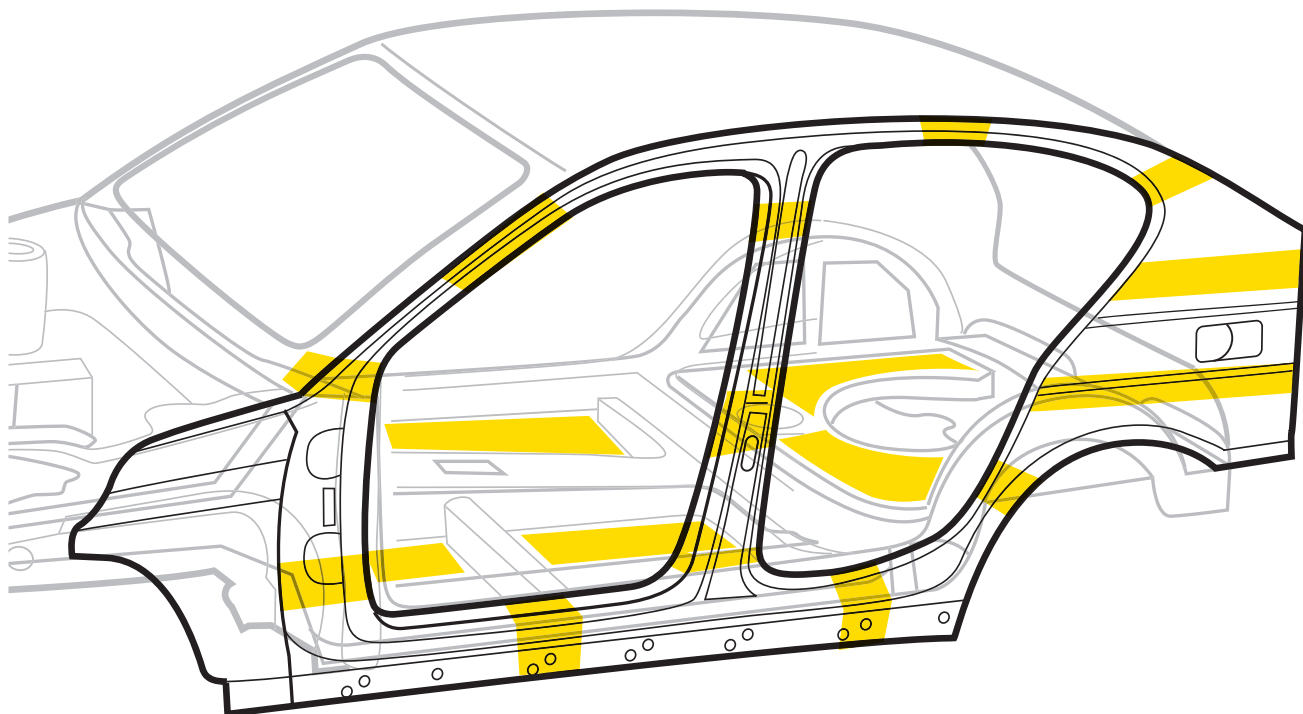
Enhanced crash performance



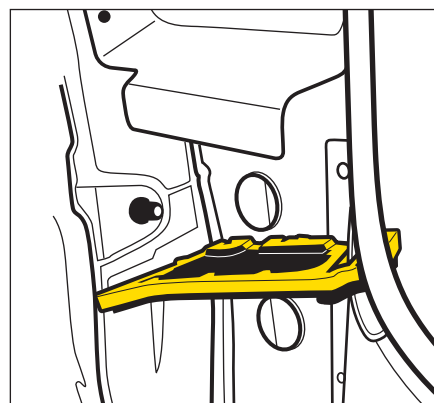
Sound Damping

The interior noise in a car is of significant importance in today's highly competitive world market. Our technical expertise and acoustic experience allow us to produce and supply our customers with innovative, high-performance products to reduce interior noise.

Sika engineers use CAD during the development process **to design effective and economical acoustic solutions**. The close cooperation with our customers from the initial development to the start of series production guarantees high quality. With creative design concepts and sophisticated manufacturing, Sika offers **unique advantages** to the most demanding applications.



Improved acoustic performance in modern vehicles using SikaBaffle® and SikaDamp®



Patented design solutions

Sound Damping



SikaBaffle® is a pre-shaped molded thermo-plastic or extruded rubber-based product used to significantly increase acoustic performance. It is inserted in the body structure during assembly and expands in the E-coat oven.



Exceptional reduction in structure-born noise with SikaBaffle®

Technological Benefits

- Seals complicated hollow body cavities
- Flexible design
- Reduction in weight
- Exceptional reduction of noise and vibration
- Insulation against water, moisture and dust

SikaDamp® Spray-on technology is a unique, spray-applied, damping solution designed to minimize interior noise through a flexible one-layer application. The spray-on material adheres to the electrode position coating to ensure maximum corrosion protection. The applied spray-on damper is heat-cured and can be used prior to UBC (Under Body Coating) or paint bake ovens.



Innovative application properties using SikaDamp® Spray-on technology

Technological Benefits

- Reduction in noise and vibration
- Reduction in vehicle weight
- Clean, accurate and reproducible
- Flexible application properties
- Excellent corrosion protection

Sound Damping

SikaDamp® is a non-curing, lightweight, elastomeric layer constrained by an insulating aluminum foil. The elastomeric layer is self-adherent and reduces structure-born vibration. It is available in both pre-formed and bulk materials. The excellent adhesive qualities allow for installation at any point during installation.



Flexible process solutions with SikaDamp®

Technological Benefits

- Flexible design
- Reduction in weight
- Exceptional reduction in noise and vibration
- Cost-efficient
- 0–150% expansion

SikaSeal® products include a variety of heat-expandable sealants that adhere to any type of stamping lubricant. These products can be supplied in rolls or as co-extruded tapes for specific dimensional requirements.



Sealing solutions with expandable SikaSeal®

Technological Benefits

- 0–200% expansion
- Protects against moisture and dust
- Injection molded or vacuum formed (Thermoplastics)
- Performance throughout a considerable temperature range

SikaBarrier® products are either pressure-sensitive adhesives or specifically designed thermoplastic parts, which can be applied in any area of vehicle assembly, body, paint or trim shops used to block airborne noise from propagating through body apertures.



SikaBarrier® sealing solutions

Technological Benefits

- Reduction in noise
- Easy installation
- Excellent sealing against air, dust and water
- Pre-sized parts

Focusing on the Customer

Sika develops system solutions in close cooperation with its customers in the automotive industry. To us, this means not only developing high-performance quality products but also assuring their functionality at each stage of the complete modular production process. Specialists in R&D, System Engineering and Application Technology as well as in the Acoustic Test Center concentrate on devising client-oriented system solutions.

Technology Centers

Our technology centers are focused on the development of new products. This puts us in a position to actively promote technological progress in the automotive industry and to develop competent approaches for our customers.

CAD/CAE Supported Development

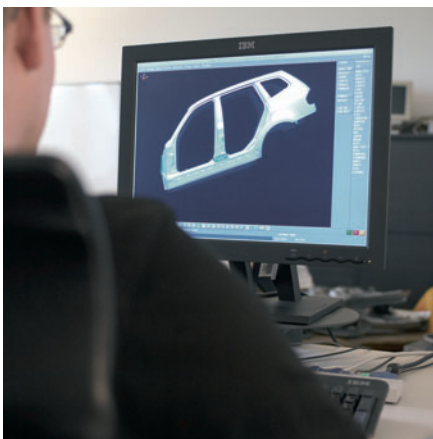
We concentrate on CAD/CAE supported development of structurally reinforcing process material. From providing precision prototypes to developing highly functional injection molded system solutions, our development engineers stay involved in client projects from the research stage to serial production.

System Engineering

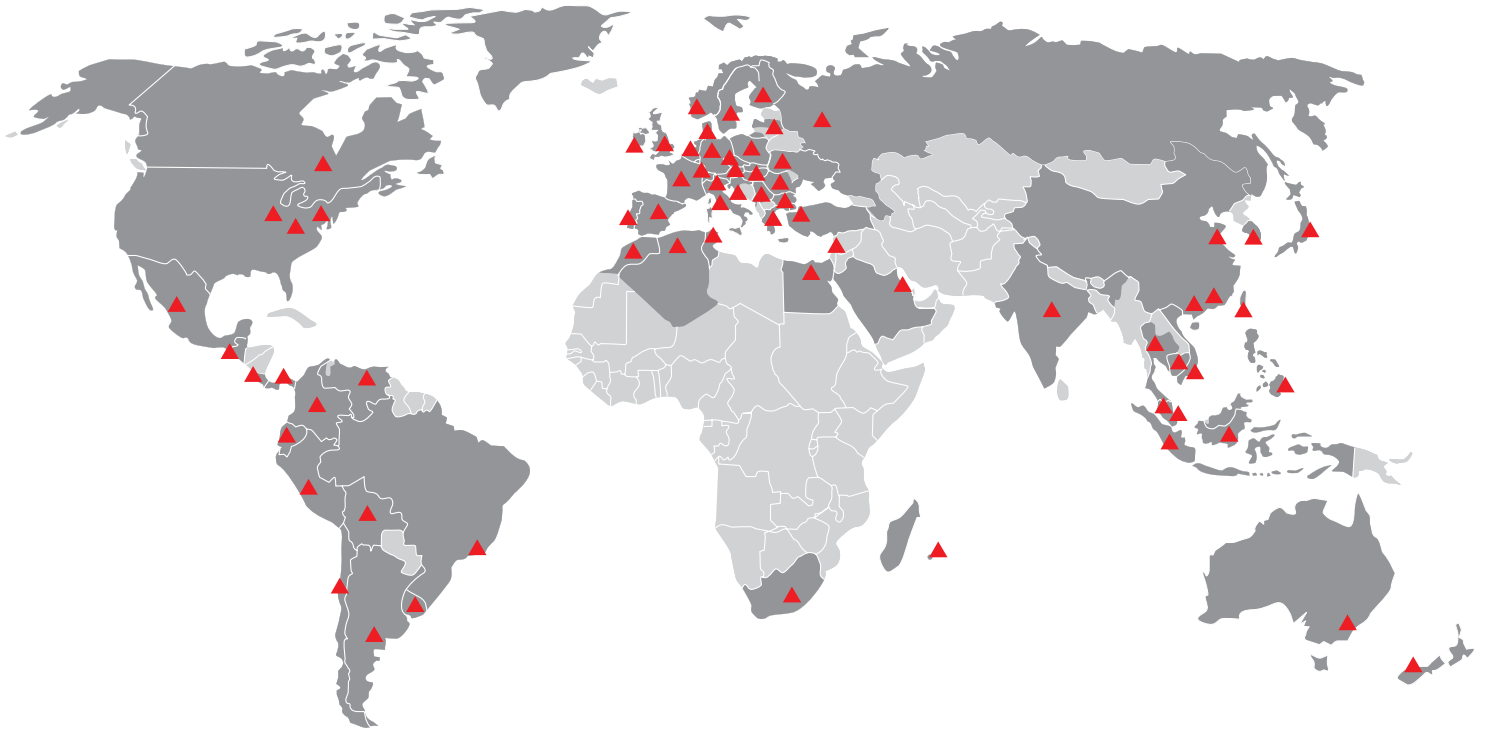
Application technology is a key success factor in using adhesives and sealants. Our System Engineering Competence Center focuses on this important task and develops application parameters and systems aiming at holistic solutions for our clients. This includes pumping and application systems as well as automated robot equipment specifically designed to meet individual customer needs.

Acoustic Test Center

In our Acoustic Test Center in the USA (Madison Heights, MI) we test our products for acoustic performance. Equipped with a Chassis Dynamometer, a wind-testing rig and an E-coat oven suitable for entire vehicles, we are able to stimulate realistic test conditions.



Sika Worldwide



Sika ensures high quality for its products and services. In each production process, for each workplace and for each employee, the guiding aim is to uphold quality at the highest level. Sika is certified according to the international standards ISO 9001, ISO 14001 and QS 9000.



Our most current General Sales Conditions shall apply. Please consult the most current local Product Data Sheet prior to any use.

www.sika.com



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