



INTERIOR & EXTERIOR BONDING SOLUTIONS START WITH SIKA

LIGHTER | STRONGER | SAFER | QUIETER | GREENER



YOU NEED TO FIND WAYS TO MAKE YOUR NEXT VEHICLE LIGHTER, STRONGER, SAFER, QUIETER OR GREENER.

SO WHERE DO YOU START?

Start with a trusted partner that can deliver global innovation on a localized scale, wherever and whenever it's needed. Start with a commitment to continuous improvement, and the knowledge that it takes years to become an overnight success. Start with a collaborative approach that can bring together great minds without knocking heads. Start with pioneering innovation that clears a path for the vehicles of the future, no matter what form they take.

START WITH SIKA.

With approved and innovative solutions for both, interior and exterior bonding, allowing our partners faster and more effective production processes, we support you to guarantee a smooth and stable supply chain to the OEM. By collaborating on advanced interior and exterior applications in an early project stage, we help our customers to enhance global projects with high performance as well as EHS-friendly products fitting your specific requirements.

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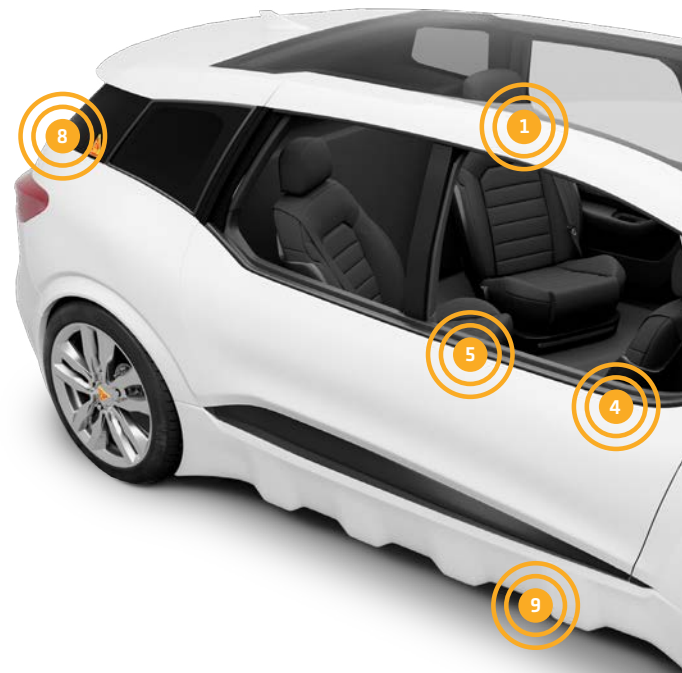
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INTERIOR ADHESIVES

More Refined Interiors Start With Sika

A FLEXIBLE MANUFACTURING CONCEPT

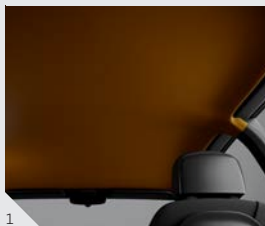
can create almost unlimited options for the consumer, particularly in the world of interior trims. Interior bonding is a vital part of this vision, but the increasing mix of challenging material combinations must be accommodated. Our technologies for lamination, flocking and assembly allow designers to create attractive, soft-feel surfaces while still meeting the process and technical application requirements. These low-emission products (including a family of classification-free products) allow for easy application, short cycle times, and enable bonding to the most difficult substrates like Polyethylene, Polypropylene and Polyamide 66.



Products

- SikaMelt®
- SikaSense®
- SikaTherm®

ASSEMBLY BONDING



1

FLOCKING



2

LEATHER LAMINATION BONDING



3

PRESS LAMINATION BONDING



4

VACUUM LAMINATION BONDING



5

EXTERIOR ADHESIVES

Exterior Personalities Start With Sika



LIGHTWEIGHT BONDING SOLUTIONS

for Exterior Components. The vehicle exterior provides consumers with more than just a first impression; it's a key aspect of the vehicle's brand and can have significant impact on their purchasing decision. But exterior design isn't just about good looks – components like sun roofs, headlights or tailgates also play an important role in aerodynamics, driver visibility and vehicle safety. Bonding those components to the exterior presents its own unique challenges: keeping weight low, meeting expectations for environmental performance and accommodating manufacturing requirements. Sikaflex®, SikaTack®, Sikasil®, SikaFast® and SikaForce® provide an efficient and proven way to bond exterior automotive parts.

HEADLAMP BONDING



6

DIRECT GLAZING OF ROOF SYSTEMS



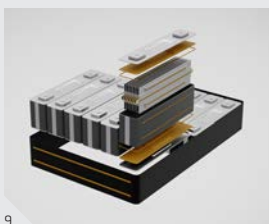
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COMPONENT BONDING



8

BATTERY BONDING



9

Products

- Sikaflex®
- SikaForce®
- SikaPower®
- Sikasil®
- SikaTack®
- Sika® Aktivator
- Sika® Primer
- SikaFast®
- SikaGard®

A photograph of the interior of a car, showing the back of a woman's head in the foreground and a man in the driver's seat. The car has grey leather seats and a sunroof. The text "MORE REFINED" is overlaid in orange.

MORE REFINED

INTER

A blurred background image of a car's interior. Two people are visible in the back seat, looking out the window. The person in the foreground has dark hair and is wearing a green shirt. The person behind them has blonde hair and is wearing a blue shirt. The car's dashboard and windows are visible in the background.

PRIORS

START WITH SIKA

VACUUM LAMINATION BONDING

Safer Manufacturing: Process and Factory Friendly Solutions, High-Performance Ensured

SIKA OFFERS THE FULL RANGE of technologies for vacuum covering laminations to provide reliable interior bonding for the wide variety of substrate materials used in assemblies; PVC and TPO-foils, wood and plastics. Sika offers tailor-made chemistries for all combinations; from 1C/2C water based products – to an extensive and relevant range of PUR and reactive polyolefin hotmelts that meet challenging process and OEM specification requirements.

Vacuum covering of PP surfaces without pre-treatment is made possible with industry-leading SikaSense® and SikaMelt® polyolefin technology, which marks a NEW ERA in bonding. The latest developments include sprayable SikaSense®-4655, SikaMelt®-9186 for PP lamination and SikaMelt®-9171 IMG with low reactivation temperature, which have been introduced for In-Mould-Graining lamination.

Within the realm of the toughest material combinations, PVC film and ABS carrier combinations represent the most demanding bonds. Sika advantage: our latest developments SikaMelt®-9649 and SikaTherm®-4206 not only provide the best-performing bonding solution, they also excel in the toughest climatic test standards.

Trust the competence of the market leader in lamination; with global reach and global references.



APPLICATIONS

- Top roll
- Seat back
- Head rest
- Door panel
- Dash board

BENEFITS

- No additional costs for pre-treatment even on PP
- Consistent cycle times – process materials are pre-coated
- Easy application processes with 1C curing or non-curing SikaMelt® hotmelt systems
- Sustainable & Safe – label-free products are available (no monomeric Isocyanates)

1 Top roll lamination with SikaSense®
2 Seat back panel laminated with SikaMelt®
3 Head rest laminated with SikaTherm®



MORE THAN 30 MILLION DOOR PANELS
FOR MULTIPLE OEMS ARE LAMINATED ANNUALLY
WITH SIKA TECHNOLOGY.

TECHNOLOGY OVERVIEW – VACUUM LAMINATION TECHNOLOGY

| Product | Technology | Substrate Combinations (Foil // Carrier) | | | | | | Key Benefit |
|---------------------------|------------------|--|------------------------|-----------------|----------------|------------------------|------------|----------------------------|
| | | PVC // ABS | PVC // NF ¹ | PVC // PP | TPO // PP | TPO // NF ¹ | TPO // ABS | |
| SikaTherm®-4206 | 2C Water-Based | ++ | ++ | ++ ² | + ² | + | + | PVC Specialist |
| SikaTherm®-4250 | 2C Water-Based | + | + | + | + ² | + | + | Multipurpose Use |
| SikaSense®-4655 | 1C-Solvent-Based | - | - | - | + | + | - | BTX Free |
| SikaMelt®-9171 | PO Hotmelt | - | - | - | + | ++ | - | Pre-coating Possible |
| SikaMelt®-9171 IMG | PO Hotmelt | - | - | - | + | ++ | + | Low Activation Temperature |
| SikaMelt®-9186 | R-PO Hotmelt | - | - | - | ++ | + | - | High Performance |
| SikaMelt®-732 | PUR Hotmelt | + ² | + | + ² | + ² | ++ | ++ | H351-free |
| SikaMelt®-9649 | PUR Hotmelt | ++ ² | ++ | ++ ² | + ² | + | + | Processing Properties |

++ Preferred Technology ¹
+ Possible Option ²
- Not Suitable

NF – Natural fiber
Pre-treatment

PRESS LAMINATION BONDING

Greener Vehicles: Process Friendly Technologies

WITH FOCUS ON TEXTILE and artificial leather surfaces for interior parts including door panel inserts, headliners, pillars, load floors and visors, press lamination Bonding processes are satisfied fully by Sika technologies.

We offer a tailor-made range of products for both general and specific demands; from 1C / 2C water based products, to all relevant PUR and reactive polyolefin hotmelts for all process temperatures. Recently introduced PUR hotmelt SikaMelt®-732 contains lower levels of residual monomer than conventional adhesives. This lower monomeric content helps to address current industry concerns in the handling of these types of products. Safer, Greener, Sustainable.

PP surfaces can be bonded without pre-treatment with SikaSense® and SikaMelt® Polyolefin technologies, establishing a new era in bonding. The latest development for spray applied adhesives is our btx-free SikaSense®-4651. New and innovative long open time SikaMelt®-9184 IS requires NO additional heat activation for lamination, while SikaTherm®-4290 remains the industry standard for headliner lamination bonding.

Continued innovation from the innovation leader, Sika.



APPLICATIONS

- Headliner
- Load floor
- Sun visor
- Parcel shelf
- Door panel

BENEFITS

- No additional costs for pre-treatment; even on PP
- Consistent, repeatable cycle times, process materials are pre-coated
- Easy application processes with 1C curing or non-curing SikaMelt® hotmelt systems
- Sustainable and safe – label-free products are available (NO monomeric Isocyanates)

- 1 Headliner lamination with SikaTherm®
- 2 Load floor lamination with SikaMelt®
- 3 Sun visor lamination with SikaMelt®
- 4 Hat rest lamination with SikaSense®



3 MILLION HEADLINERS
LAMINATED WITH SIKATHERM® COMPLETE
VEHICLE INTERIORS ANNUALLY

TECHNOLOGY OVERVIEW – PRESS LAMINATION BONDING

| Product | Technology | Substrate Combinations (Foil // Carrier) | | | | Key Benefit |
|------------------------|------------------|--|------------------------------|--------------------------|--------------------------------------|----------------------|
| | | PS ¹ // Textile | PS // Textile with Foam Back | PS // Artificial Leather | PP // Textile/Textile with Foam Back | |
| SikaTherm®-4120 | 1C Water-Based | + | + | | | One Component |
| SikaTherm®-4250 | 2C Water-Based | ++ | ++ | ++ | + | Multipurpose Use |
| SikaSense®-4651 | 1C-Solvent-Based | + | + | - | ++ | BTX Free |
| SikaMelt®-9171 | PO Hotmelt | - | - | - | ++ | Pre-coating Possible |
| SikaMelt®-9185 | R-PO Hotmelt | - | - | - | ++ | High Heat Resistance |
| SikaMelt®-732 | PUR Hotmelt | ++ | ++ | + | + ² | H351-free |

++ Preferred Technology
+ Possible Option
- Not Suitable

¹
²

PS - Polar Substrate
Pre-treatment

LEATHER LAMINATION BONDING

Stronger Bonds: Improved Heat Resistance, Lower Temperature Application

THE MARKET STANDARD FOR leather membrane bonding and processing, easy to use SikaTherm®-4250 is our multi-purpose water-based lamination adhesive, even in demanding applications, while SikaMelt®-710 is our latest innovation working to set new standards by combining faster production processing and stronger bonds. This innovation in polyurethane hotmelts represents the future for leather lamination bonding, exhibiting excellent spray properties and offering lower activation temperatures, contributing to greener processes.



1 Leather wrapped dash board laminated with SikaSense®
2 Center console laminated with SikaTherm®
3 Door insert laminated with SikaMelt®



APPLICATIONS

- Leather wrapped dash-board
- Center console
- Door panel
- Steering wheel

BENEFITS

- Excellent sprayability
- Low activation temperature - safer and greener process
- Ease of use - One side application for PUR hotmelt



7 MILLION STEERING WHEELS
MADE SOFT TO THE TOUCH ANNUALLY
USING SIKA LAMINATION TECHNOLOGY

TECHNOLOGY OVERVIEW - LEATHER LAMINATION BONDING

| Product | Technology | Processing | Properties Dried | Part Size | Key Benefit |
|------------------------|----------------|--|------------------|-----------|-------------------------|
| SikaTherm®-4250 | 2C Water-Based | Positioning Using Hot Air Gun | Tack Free | Large | Multipurpose Use |
| SikaTherm®-4306 | 2C Water-Based | Cold Contact Bonding at Room-temperature | Tacky | Small | Low Lamination Pressure |
| SikaMelt®-710 | PUR Hotmelt | Automated Lamination of Leather | Tack Free | Large | H351-free |
| SikaSense®-4450 | 1C Water-Based | Manual Steering Wheel Lamination | Tacky | Small | Easy to Use |

FLOCKING

Simple, Single Solution: One Adhesive for All Substrates

SIKATHERM®-4155 BL, THE MULTI-PUPOSE FLOCKING ADHESIVE used to create high quality surfaces for a wide variety of interior design components, including glove boxes, consoles and sliding elements.

SikaTherm®-4155 BL provides excellent spray properties and good adhesion to substrates, while meeting or exceeding the latest OEM abrasion and climatic test standards.



1

APPLICATIONS

- Door seal
- Glove box
- Center console

BENEFITS

- Broad adhesion range
- High UV resistance
- High abrasion resistance
- High water resistance
- Flexible substrate / textile flocking
- Good adhesion to PVC



2



3

- 1 Door seal with SikaTherm®-4155 BL
- 2 Glove box with SikaTherm®-4155 BL
- 3 Center console with SikaTherm®-4155 BL

ASSEMBLY BONDING

Simplify Processes: "Multi-Purpose" Hotmelts Meet Complex Requirements

TODAY'S AUTOMOTIVE OES MANUFACTURING PROCESSES demand solutions for multiple applications including headliner, door and instrument panel assembly (multiple substrates), carpet bonding, decorative parts assembly and installation of water shedders to name a few. The most important requirement is to meet the customers' rising demands for fast and efficient processes, while also meeting material performance requirements. The SikaMelt® product range is ideally suited for maximum coverage. SikaMelt® reactive hotmelts can be used to bond polyolefins without the need for pre-treatments or primers, increasing throughput with reliable results.

TECHNOLOGY OVERVIEW – ASSEMBLY BONDING

| Product | Technology | Substrate | | | | | Key Benefit |
|-------------------|--------------|-----------|----------------|-------|-----------------|---------------|------------------------------|
| | | ABS | PP | Metal | PA | Natural Fiber | |
| SikaMelt®-9289 | PSA Hotmelt | + | + | + | + | + | Permanently Tacky |
| SikaMelt®-9171 OT | PO Hotmelt | + | ++ | | | ++ | Polar & Non-polar Substrates |
| SikaMelt®-885 IA | R-PO Hotmelt | + | ++ | | | + | High Heat Resistance |
| SikaMelt®-9670 FS | PUR Hotmelt | ++ | + ¹ | + | ++ ¹ | ++ | Fast Setting |
| SikaMelt®-678 | PUR Hotmelt | ++ | + ¹ | ++ | + | ++ | Sprayable, Long Open Time |

++ Preferred technology + Possible option ¹Pre-treatment



1

1 Decorative trim parts assembled by using SikaMelt® PUR
2 Water shedder assembly bonding with SikaMelt® PSA

APPLICATIONS

- Decorative trim parts
- Water shedder

BENEFITS

- Special range for short cycle times ensures efficient processes
- Products meet odor and fogging requirements
- Proven and cost effective solutions
- Excellent heat and aging resistance



2

A man and a woman are loading gear into the open trunk of a silver car in a park. The man, in the background, is carrying a large green mesh bag of firewood on his shoulder. The woman, in the foreground, is holding a rolled-up grey sleeping bag and has a dark blanket tucked under her arm. She is reaching up to place something into the trunk. The background is filled with trees with autumn-colored leaves.

EXTE
PERSONALITI



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ES START WITH SIKA

COMPONENT BONDING

Lighter Vehicles: Bonding Solutions for Multi-Material Mix

THE RIGHT TECHNOLOGY for any application, any combination. Lightweight bonding has become a common part of vehicle manufacturing processes, but joining materials with different properties (like thermal elongation or polarity) presents significant challenges. Sika offers a proven portfolio of bonding solutions which provide excellent adhesion to a broad range of substrates all over the vehicle exterior: spoilers, fenders, hang-on parts including doors and hoods, covers, and even complete tailgates. SikaForce® (flexible) 2C PU adhesives, 1C Sikaflex® Booster technology and SikaMelt® hotmelts are specifically designed for lightweight bonding of mixed materials – metals, composites, woods and plastics like PP, PBT, ABS and PC, as well as different blends. All three Sika technologies work well when pre-treatments like plasma, corona or flame are utilized. SikaPower® Structural Adhesives are OEM-approved products for body-in-white applications, and repair products are offered to maintain OEM vehicle integrity during the repair process. Advantage – Sika.



1



2



3

- 1 Tailgates bonded with SikaForce®
- 2 Spoilers assembled with SikaMelt®
- 3 Body-in-white parts with SikaPower®

APPLICATIONS

- Tailgates
- Spoilers
- Body-in-white parts

BENEFITS

- Cost reduction – faster handling time (accelerated adhesive, fast adhesion build-up): shorter line, less storage time and space
- Low modulus – no read-through marks (even in winter conditions)
- Products cure independently of environmental conditions
- No pre-treatment (primer) needed



MORE THAN 1 MILLION TAILGATES
ARE BONDED EACH YEAR WITH
SIKA TECHNOLOGY

TECHNOLOGY OVERVIEW – ELASTIC BONDING

| Product | Property | | | | |
|-------------------------------|------------|-----------|---|-------------------------|---------|
| | Technology | G-modulus | Key Benefit | Application Temperature | Shore A |
| SikaForce®-7570 HP | 2C PU | Medium | Wide Adhesion Range | RT | 60 |
| SikaForce®-820 | 2C PU | Medium | Minimized Risk of Stress-cracking | RT | 65 |
| Sikaflex®-270 + Booster AC-30 | 1C PU | Medium | Fast Curing and Adhesion Build Up | RT – 40°C | 55 |
| Sikaflex®-274 + Booster 20 W | 1C PU | Low | Highly Flexible with Fast Adhesion Build Up | RT – 40°C | 45 |

TECHNOLOGY OVERVIEW – STRUCTURAL BONDING

| Product | Property | | | | |
|-----------------|------------|---|---------------------|-------------------------|-------------------|
| | Technology | Suitable Substrates | Key Benefit | Application Temperature | Curing Conditions |
| SikaForce®-7777 | 2C PU | Aluminum e-coated Materials, Plastic Substrates | Wide Adhesion Range | RT | RT |
| SikaForce®-7888 | 2C PU | | Wide Adhesion Range | RT | RT |
| SikaMelt®-676 | 1C PUR HM | Plastic Substrates | Cost Efficiency | 140°C | RT + Moisture |
| SikaPower®-497 | 1C Epoxy | Aluminum, Steel, Composites | Crash Resistant | RT | 180°C |

HEADLAMP BONDING

Safe, Bright and Reliable Solutions

A FULL-RANGE APPROACH that meets the highest technical requirements. As headlamps have grown increasingly complex in design, so have the technologies required to bond and seal them. Sika has been providing adhesives for headlights since the mid 90's, when the lens changed from inorganic glass to PC (polycarbonate). Since that time, headlights have increased significantly in size and become an important part of vehicle styling. Our product range includes several proven technologies for headlight bonding, that offer excellent adhesion to the PC lens, its coatings, and the PP and PBT housings used in today's advanced designs. From a process perspective, our Sikaflex®, SikaForce® and SikaMelt® PU adhesives allow required post-bond leakage testing to be done in a very short time. Their high strength and elastic properties make them an excellent choice for bonding PC and PP. Our new, third generation of Sikaflex® PU warmmelts are the result of a process of continuous development in headlight bonding. To cover the full range of headlamp bonding adhesives, Sika also offers 1C and 2C Sikasil® silicones with excellent heat resistance (a critical requirement for fog lamps).



1



2



3

APPLICATIONS

- Headlamp
- Fog lamp

BENEFITS

- Reduction of waste – long workability
- Fast processing – specially designed material and good pumpability
- Immediate initial strength at room temperature allows for rapid post-bond leakage testing
- Excellent heat resistance

1 Headlamp bonded with Sikaflex®
2 Fog lamp bonded with Sikasil®
3 Headlamp bonded with Sikasil®

30 MILLION HEADLAMPS

BONDED WITH SIKA ADHESIVE TECHNOLOGIES LIGHT
THE WAY FOR 15 MILLION VEHICLES ANNUALLY

TECHNOLOGY OVERVIEW – HEADLAMP BONDING

| Product | Property | | | | |
|---------------------------|-------------|--|-----------------|-------------------------|----------------------------------|
| | Technology | Key Benefit | Heat Resistance | Application Temperature | Approximate Time to Leakage Test |
| SikaMelt®-700 | PUR HM | Fast and Simple Processing | Very Good | 140°C | 5 min. ¹ |
| Sikaflex®-630 HD-2 | 1C PU | High cost Efficiency Combined with Very Good Performance | Very Good | 95°C | 1 – 10 min. ¹ |
| Sikasil®AS-785 | 2C Silicone | High UV- and Temperature Resistance | Excellent | RT | 20 min. ¹ |
| Sikasil®AS-70 | 1C Silicone | Simple Processing | Excellent | RT | - |
| SikaForce®-400 | 2C PU | High Cost Efficiency Combined with Excellent Performance | Very Good | RT | 5 – 10 min. ¹ |

¹ Depends on Pressure and Design

ROOF MODULE BONDING

Simplified Processes: Make it Fast and Simple

TODAY'S FAST-PACED AUTOMOTIVE manufacturing processes demand that roof systems be bonded and transported to final assembly in a short time. This makes a high-strength bond during the initial curing process (known as green strength) essential for sunroof and panoramic assemblies to ensure the reliability and efficiency of the bonded system. Our product range includes a variety of polyurethane technologies that allow for fast handling AND durable joining. While more and more assemblies are designed with weight reduction goals, substrate bonding becomes more challenging; parts made from plastics and hybrids are more susceptible to marking. Our approved exterior solutions help to avoid bondline readthrough on thin and sensitive plastic parts. Advantage-Sika.

Further, Sika pre-treatment systems help to ensure highly consistent and reliable bonds in the final assembly, while also offering easy application techniques. New Sika® Primer®-207 is not only a universal one-step primer, but is also UV-detectable which enables the detection of pre-treatment for inline quality control. Sika pre-treatment agents help to ensure highly reproducible and safe processes. New Sika® Primer®-207 is a universal one-step primer.




1 Panorama Roof Module bonded with Sikaflex®
2 Sun Roof bonded with SikaForce®
3 Glass Bonding bonded with Sikaflex®

APPLICATIONS

- Panorama Roof Module
- Sun Roof
- Glass Bonding

BENEFITS

- Cost reduction – faster handling time, increased throughput
- Well-suited to just-in-time production
- Boosted Sika products cure independently of the environmental conditions
- Bubble-free – innovative iCure® technology.



3 MILLION ROOF MODULES
ASSEMBLED ANNUALLY WITH SIKA TECHNOLOGY
ALLOW FOR CLEARER VIEWS

TECHNOLOGY OVERVIEW – ROOF MODULE BONDING

| Product | Property | | | | | | | Key Benefit |
|--|------------|-------------|----------------|--------------|-----------|----------------------|-----------------|---|
| | Technology | Fast Curing | Green Strength | Initial Grip | G-Modulus | Tack-free Time [min] | Open Time [min] | |
| Sikaflex®-250 PC | 1C PU | No | Good | Excellent | Medium | 10 | 10 | High Initial Grip |
| Sikaflex®-270 + Sika® Booster AC-30 | 1C PU | Yes | Excellent | Very Good | Medium | 30 | 3 | Fast Curing and Adhesion Build Up |
| Sikaflex®-271 + Sika® Booster-20 W | 1C PU | Yes | Excellent | Very Good | High | 20 | 5 | Reinforcing Elastic |
| Sikaflex®-274 + Sika® Booster-20 W | 1C PU | Yes | Excellent | Very Good | Low | 30 | 5 | Highly Flexible with Fast Adhesion Build Up |
| SikaForce®-820 | 2C PU | Yes | Excellent | Good | Low | - | 4 | Minimized Risk of Stress-cracking |

LIGHTWEIGHT BONDING

Mixed-Material Bonding for Lighter Vehicles

WEIGHT REDUCTION IS A KEY GOAL in new vehicle development. To achieve it, engineers are using non-traditional materials such as aluminum, magnesium and carbon fiber-reinforced plastics and thinner, lighter gauge metal panels. These materials create unique challenges in vehicle assembly processes and introduce unwanted effects on durability, vehicle dynamics and crash performance.

Sika's unique structural adhesives (SikaPower®, MBX®-technology and Sikaflex® UHM) and our engineering prowess in understanding Δ/α (different coefficients of mixed material expansion), enable mixed-material bonding of lighter materials including aluminum and carbon fiber-reinforced plastic, with traditional and high-strength steel.



TECHNOLOGY OVERVIEW – LIGHTWEIGHT BONDING

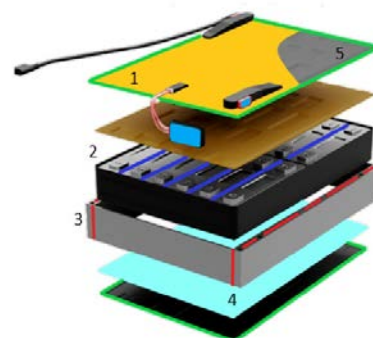
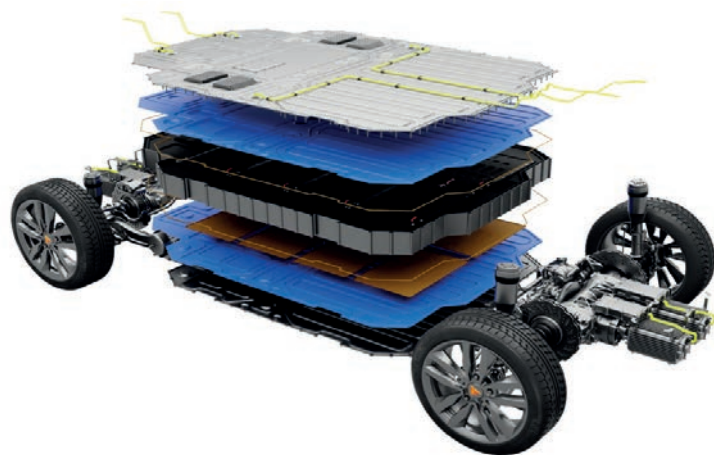
| Product | Property | | | | |
|---------------------------|------------|--------------------------------|--|-------------------|----------------------|
| | Technology | Suitable Substrates | Key Benefit | Curing Conditions | Material Properties |
| Sikaflex® + Sika® Booster | 1C PU | Glass, Plastics | High Elasticity | RT | Flexible |
| SikaForce® | 2C PU | Composites, Painted Substrates | Broad Adhesion Range | RT | Semi-Structural |
| SikaPower® | 1C EP | Metals, Composites | Mixed Bonding in the Body Shop | ca. 180°C | Semi-Crash-Resistant |
| Sikaflex® UHM | 1C PU | Metals, Composites | Structural Bonding of Mixed Substrates | RT | Structural |

INNOVATIVE SOLUTIONS FOR BATTERY SYSTEMS

Specific designs for Improved Performance and maximized Passengers safety

CHARGE YOUR AMBITION WITH SIKA. As an industry leading specialty chemical group with over 100 years of extensive knowledge in bonding, sealing, damping, reinforcing and protecting, our Global Business rapidly understands challenges of New Energy Vehicles and transfers benefits of the extensive Sika group R&D efforts throughout our global network into this developing market arena.

With more than 3 decades of Bonding & Sealing experience in the Industry, Sika Automotive leverages a pole position to tackle the new challenges of Battery Housing Assembly, featuring products with especially outstanding adhesion on plain metals and chemical resistance to glycols and transmission fluids. Using our long term experience in dielectric potting, we have taken the path to develop Thermal Interface Materials for Battery Systems including Silicone-free Thermal Conductive Adhesives and Gap Fillers providing the best performance for optimum heat transfer in Battery Packs and Modules, as well as intumescent coatings which aid to actively delay fire spread in battery system enclosures to regulations.



APPLICATIONS

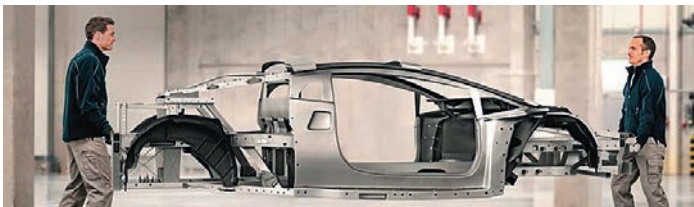
- 1 Fire Protective Coating
- 2 Thermal Conductive Adhesive
- 3 Structural Bonding Systems
- 4 Thermal Interface Gap Filler
- 5 Bonding & Sealing Solutions

TECHNOLOGY OVERVIEW - SOLUTIONS FOR BATTERY SYSTEMS CONTRUCTION AND ASSEMBLY

| Product | Properties | |
|------------------------|---------------------|---|
| | Application | Key Benefits |
| SikaGard® | Fire Protection | Stop fire spread / Heat Insulation / Adhesion to metals & plastics |
| SikaForce®-TC | Cells/Packs Bonding | Thermal Conductive / Fast Curing / Adhesion to metals |
| SikaForce® | Structural Bonding | Adhesion to Metals / Glycol resistant / High strength / Fast curing |
| SikaBiresin®-TC | Thermal Interface | High Thermal Conductivity / Easy process / Easy maintenance |
| SikaFlex® | Bonding/Sealing | Adhesion to metals & plastics / Fast Curing / Flexible |

INNOVATION, IT STARTS WITH PASSION

AT SIKA, WE BELIEVE that a truly innovative company is one that starts with a culture within which a passion for innovation and creativity thrive. An innovative company should also take a customer-focused view; one that anticipates customer needs with a thorough understanding of key market trends. Advantage Sika!



LIGHTER

We have a full range of products which enable our customers to make their vehicles lighter. For example, we were the first to engineer body shop adhesives (SikaPower®), which enable mixed-material bonding of lighter materials such as aluminum, carbon fiber reinforced plastic, as well as traditional and high strength steel.



STRONGER AND SAFER

We were the pioneer in vehicle exterior parts bonding with our Sikaflex® + Sika® Booster and SikaForce® products, which not only help stiffen the vehicle for better overall dynamics but also improve crash performance and increase vehicle occupant safety.



QUIETER

We provide solutions that make vehicles quieter; SikaBaffle® seals noise pathways, while SikaDamp® reduces the body panel vibration that contributes to audible noise in the vehicle. Both products are engineered for best-in-class weight-to-performance ratio. Used together or separately, our industry leading acoustics solutions improve vehicle occupant comfort.



GREENER

We were the first to establish water-based pre-treatments and polyurethane hotmelts with low monomeric isocyanate content and reactive polyolefin hotmelts free of classification to the interior automotive market – a more environmentally friendly approach that easily outperforms the industry's previous generation of products.



VALUE-ADDED INNOVATION

We continuously develop new, cost-effective solutions, which allow our customers to use less material or reduce complexity in their manufacturing process. SikaPower® structural adhesives, for example, allow the reduction of welds in vehicle body sections, while strengthening overall crash durability.

START WITH SIKA

MORE THAN

**50% OF ALL
VEHICLES**

USE SIKA PRODUCTS AND
TECHNOLOGIES

**30 MILLION
VEHICLES**

PRODUCED ANNUALLY WORLDWIDE CONTAIN
SIKA LAMINATION ADHESIVES

25 MILLION PLUS

VEHICLES MADE STRONGER AND SAFER EACH
YEAR WITH OUR BODY SHOP ADHESIVES

**30% WEIGHT
REDUCTION**

IN THE CAR BODY CAN BE ACHIEVED
WHEN SIKA® PROPRIETARY
HIGH-STRENGTH BONDING SOLUTIONS
ARE USED IN CONJUNCTION WITH
LIGHTWEIGHT MATERIALS AND THINNER
MATERIAL CONSTRUCTION

MORE THAN

300,000 LITERS

OF VOCs WERE REDUCED THROUGH THE USE
OF SIKA'S PRIMERLESS TO GLASS WATER-BASED
PRE-TREATMENT SYSTEMS

MORE THAN

70 MILLION

CAR WINDOWS ARE BONDED DURING
ASSEMBLY USING SIKAFLEX®

SIKA HAS

20,000+ EMPLOYEES

IN OVER

100 COUNTRIES

MORE THAN

700 MILLION

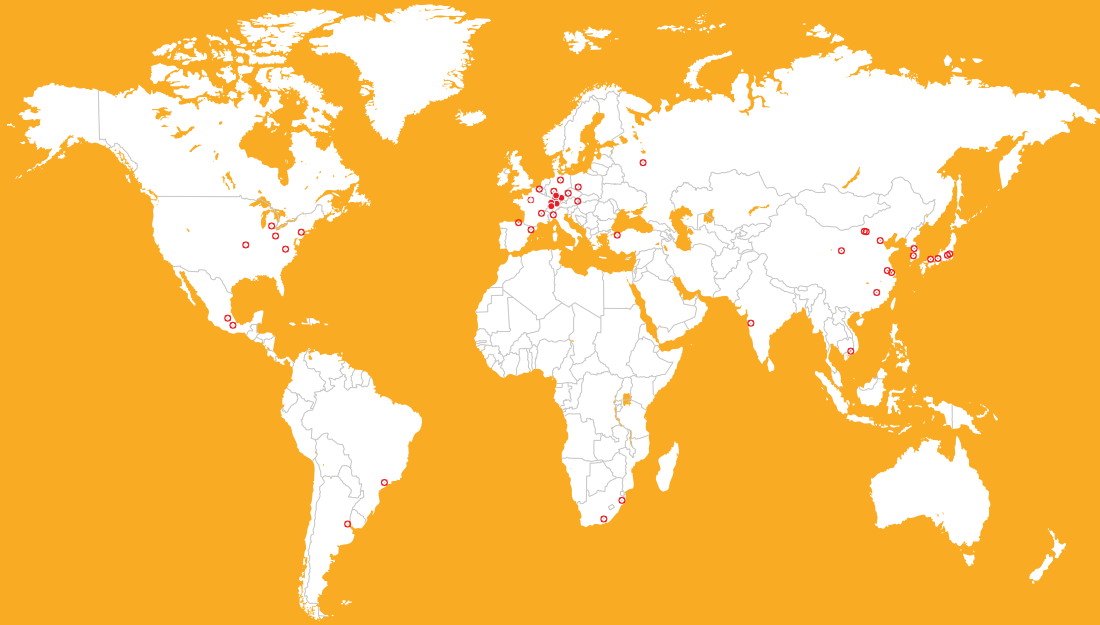
PARTS BASED ON OUR SIKABAFFLE®, SIKADAMP® AND
SIKAREINFORCER® TECHNOLOGIES ARE SUPPLIED ANNUALLY
TO THE GLOBAL AUTOMOTIVE INDUSTRY

MORE THAN

30%

INTERIOR NOISE
REDUCTION IN VEHICLES
THANKS TO SIKA'S
ACOUSTIC SOLUTIONS

GLOBAL REACH BUT LOCAL PARTNERSHIP



START WITH SIKA THROUGH ANY OF THE CONTACT POINTS BELOW:

EUROPE

Sika Automotive AG
Kreuzlingerstrasse 35
CH-8590 Romanshorn
+41 58 436 58 01

Sika Automotive Belgium S.A.
Avenue Landas 2
Zoning Industriel
BE-1480 Tubize - Saintes
+32 2 367 21 20

Sika Automotive
Hamburg GmbH
Reichsbahnstrasse 99
DE-22525 Hamburg
+49 40 540 020

Sika Turkey Otomotiv San. ve
Tic. Ltd. Şti.
Yenişehir Mh. Reyhan Cd.,
Enginsu Sit. VL1 D:37/12
34912 Pendik/Istanbul
Phone: +90 216 5600-801

Sika Automotive
Frankfurt-Worms GmbH
Weinsheimer Str. 96
DE- 67547 Worms
+49 62 41 3 010

AMERICAS

Sika Automotive N.A.
30800 Stephenson Hwy.
US-Madison Heights, MI 48071
+1 248 577 0020

Sika S.A.
Av. Dr. Alberto Jackson
Byington, 1525
CEP 06276-000 Osasco
BR-São Paulo
+55 11 2877 6521

Sika Mexicana S.A. DE C.V.
Carretera Libre a Celaya Km 8.5
Fracc. Ind. Balvanera
Corregidora, Qro.
CP 76920
MX-Querétaro
+52 442 238 5800

ASIA PACIFIC

Hayashi - Sika Automotive Ltd.
Fushimi Daiichi Building 6th floor
2-9-3 Sakae, Naka-ku
JP-460-0008 Nagoya Aichi
+81 52 203 8675

Sika Ltd.
2-15-2 Konan
Intercity Tower B 10th Floor
Minato-ku
JP-108-6110 Shinagawa
+81 36 433 2314

Sika Korea Ltd.
35-8 nonhyeon-dong
Gangnam-gu
KR-135-815 Seoul
+82 31 8056 7777

Sika India Pvt. Ltd.
501 & 502, B Wing,
Lotus Corporate Park, Goregoan East
IN-Mumbai 400063
+91 22 4038 4038

Sika (China) Ltd.
No. 28 Jing Dong Road
Suzhou Industrial Park
CN-215121 Suzhou
+86 512 6273 2888

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

