GLOBAL REACH BUT LOCAL PARTNERSHIP

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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 for your exterior and interior design. 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.

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.
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.

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.
MORE Refined
INTERIORS
START WITH SIKA
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 re-activation 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)

---

**TECHNOLOGY OVERVIEW – VACUUM LAMINATION TECHNOLOGY**

<table>
<thead>
<tr>
<th>Substrate Combinations (Foil // Carrier)</th>
<th>Technology</th>
<th>Key Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVC // ABS</td>
<td>SikaTherm®-4206</td>
<td>2C Water-Based</td>
</tr>
<tr>
<td>PVC // NF1</td>
<td>SikaTherm®-4250</td>
<td>2C Water-Based</td>
</tr>
<tr>
<td>PVC // PP</td>
<td>SikaSense®-4655</td>
<td>1C Solvent-Based</td>
</tr>
<tr>
<td>PVC // NF1</td>
<td>SikaMelt®-9171</td>
<td>PO Hotmelt</td>
</tr>
<tr>
<td>PVC // PP</td>
<td>SikaMelt®-9632 SF</td>
<td>PUR Hotmelt</td>
</tr>
<tr>
<td>PVC // NF1</td>
<td>SikaMelt®-9649</td>
<td>PUR Hotmelt</td>
</tr>
<tr>
<td>PVC // NF1</td>
<td>SikaSense®-4655</td>
<td>1C Solvent-Based</td>
</tr>
<tr>
<td>PVC // NF1</td>
<td>SikaMelt®-9171 IMG</td>
<td>PO Hotmelt</td>
</tr>
<tr>
<td>PVC // NF1</td>
<td>SikaMelt®-9186</td>
<td>R-PO Hotmelt</td>
</tr>
</tbody>
</table>

++ Preferred Technology
+ Possible Option
- Not Suitable

1 NF – Natural fiber
2 Pre-treatment
3 R40 Classification Free
4 High Performance
5 B1x Free
6 Multi-purpose Use
7 PVC Specialist
8 Processing Properties

---

MORE THAN 5 MILLION DOOR PANELS FOR MULTIPLE OEMS ARE LAMINATED ANNUALLY WITH SIKA TECHNOLOGY.
PRESS LAMINATION BONDING
Greener Vehicles: Environmentally 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®-9632 SF 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®-4290 remains the industry standart 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-cur- ing SikaMelt® hotmelt systems
- Sustainable and safe - label-free products are available (NO monomeric Isocyanates)

TECHNOLOGY OVERVIEW – PRESS LAMINATION BONDING

<table>
<thead>
<tr>
<th>Adhesive</th>
<th>Technology</th>
<th>Substrate Combinations (Foil // Carrier)</th>
<th>Key Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>PS // Textile</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>PS // Textile with Foam Back</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>PS // Artificial Leather</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>PP // Textile/Textile with Foam Back</td>
<td></td>
</tr>
<tr>
<td>SikaTherm®-4120</td>
<td>1C Water-Based</td>
<td>+</td>
<td>One Component</td>
</tr>
<tr>
<td>SikaTherm®-4250</td>
<td>2C Water-Based</td>
<td>++</td>
<td>Multipurpose Use</td>
</tr>
<tr>
<td>SikaSense®-4651</td>
<td>1C Solvent-Based</td>
<td>+</td>
<td>BTX Free</td>
</tr>
<tr>
<td>SikaMelt®-9171</td>
<td>PO Hotmelt</td>
<td>-</td>
<td>Pre-coating Possible</td>
</tr>
<tr>
<td>SikaMelt®-9185</td>
<td>PO-PO Hotmelt</td>
<td>-</td>
<td>High Heat Resistance</td>
</tr>
<tr>
<td>SikaMelt®-9632 SF</td>
<td>PUR Hotmelt</td>
<td>++</td>
<td>R40 Classification Free</td>
</tr>
</tbody>
</table>

++ Preferred Technology
+ Possible Option
- Not Suitable

3 MILLION HEADLINERS LAMINATED WITH SIKATHERM® OUTFIT VEHICLE INTERIORS ANNUALLY

1  PS - Polar Substrate
2  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, easy to use demanding applications, while SikaMelt®-9610 is our latest innovation working to set new standards 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.

APPLICATIONS
- Leather wrapped dashboard
- 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

TECHNOLOGY OVERVIEW – LEATHER LAMINATION BONDING

<table>
<thead>
<tr>
<th>Adhesive</th>
<th>Technology</th>
<th>Processing</th>
<th>Properties Dried</th>
<th>Part Size</th>
<th>Key Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SikaTherm®-4250</td>
<td>2C Water-Based</td>
<td>Positioning Using Hot Air Gun</td>
<td>Tack Free</td>
<td>Large</td>
<td>Multipurpose Use</td>
</tr>
<tr>
<td>SikaTherm®-4306</td>
<td>2C Water-Based</td>
<td>Cold Contact Bonding at Room-Temperature</td>
<td>Tacky</td>
<td>Small</td>
<td>Low Lamination Pressure</td>
</tr>
<tr>
<td>SikaMelt®-9610</td>
<td>PUR Hotmelt</td>
<td>Automated Lamination of Presscoated Leather</td>
<td>Tack Free</td>
<td>Large</td>
<td>Outstanding Aging Resistance</td>
</tr>
<tr>
<td>SikaSense®-4450</td>
<td>1C Water-Based</td>
<td>Manual Steering Wheel Lamination</td>
<td>Tacky</td>
<td>Small</td>
<td>Easy to Use</td>
</tr>
</tbody>
</table>

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

Simple, Single Solution: One Adhesive for All Substrates

SIKATHERM®-4155 BL, THE MULTI-PURPOSE FLOCKING ADHESIVES 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.

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

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. SikaForce® 2C PUR adhesives offer a wide range of cure rates, and strengths especially designed for varying process and performance needs, and are exceeding customer expectations worldwide.

SIKATHERM®-4155 BL, THE MULTI-PURPOSE FLOCKING ADHESIVES

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

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

TECHNOLOGY OVERVIEW – ASSEMBLY BONDING

<table>
<thead>
<tr>
<th>Adhesive</th>
<th>Technology</th>
<th>Substrate</th>
<th>ABS</th>
<th>PP</th>
<th>Metal</th>
<th>PA</th>
<th>Natural Fiber</th>
<th>Key Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SikaMelt®-9289</td>
<td>PSA Hotmelt</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>Permanently Tacky</td>
</tr>
<tr>
<td>SikaMelt®-9171 OT</td>
<td>PO Hotmelt</td>
<td>+</td>
<td>++</td>
<td>-</td>
<td>+</td>
<td>++</td>
<td>Polar &amp; non-polar Substrates</td>
<td></td>
</tr>
<tr>
<td>SikaMelt®-9181 IA</td>
<td>AR-PO Hotmelt</td>
<td>+</td>
<td>++</td>
<td>-</td>
<td>++</td>
<td>+</td>
<td>High Heat Resistance</td>
<td></td>
</tr>
<tr>
<td>SikaMelt®-9670 FS</td>
<td>PUR Hotmelt</td>
<td>++</td>
<td>+1</td>
<td>-</td>
<td>++</td>
<td>++</td>
<td>Fast Setting</td>
<td></td>
</tr>
<tr>
<td>SikaMelt®-9676 FC</td>
<td>PUR Hotmelt</td>
<td>++</td>
<td>+1</td>
<td>-</td>
<td>++</td>
<td>+</td>
<td>Long Open Time</td>
<td></td>
</tr>
</tbody>
</table>

++ Preferred technology   + Possible option   1 Pre-treatment

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

1. Decorative trim parts assembled by using SikaMelt® PUR
2. Decorative trim parts assembled by using SikaForce® 2C PUR

BETTER VEHICLES START WITH SIKA INTERIOR / FLOCKING/ASSEMBLY BONDING
EXTERIOR

PERSONALITIES START WITH SIKA
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.

**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

**TECHNOLOGY OVERVIEW – ELASTIC BONDING**

<table>
<thead>
<tr>
<th>Product</th>
<th>Technology</th>
<th>G-modulus</th>
<th>Key Benefit</th>
<th>Application Temperature</th>
<th>Shore A</th>
</tr>
</thead>
<tbody>
<tr>
<td>SikaForce®-7570</td>
<td>2C PU</td>
<td>medium</td>
<td>Wide Adhesion Range</td>
<td>RT</td>
<td>60</td>
</tr>
<tr>
<td>Sikaflex®-250 PC</td>
<td>1C PU</td>
<td>medium</td>
<td>High Initial Grip</td>
<td>80°C</td>
<td>60</td>
</tr>
<tr>
<td>Sikaflex®-254 + Booster 20 W</td>
<td>1C PU</td>
<td>low</td>
<td>Highly Flexible with Fast Adhesion Build Up</td>
<td>RT - 40°C</td>
<td>45</td>
</tr>
<tr>
<td>Sikaflex®-270 + Booster AC 30</td>
<td>1C PU</td>
<td>medium</td>
<td>Fast Curing and Adhesion Build Up</td>
<td>RT - 40°C</td>
<td>55</td>
</tr>
<tr>
<td>Sikaflex®-271 + Booster 20 W</td>
<td>1C PU</td>
<td>high</td>
<td>Reinforcing Elastic</td>
<td>40°C</td>
<td>65</td>
</tr>
</tbody>
</table>

**TECHNOLOGY OVERVIEW – STRUCTURAL BONDING**

<table>
<thead>
<tr>
<th>Product</th>
<th>Technology</th>
<th>Suitable Substrates</th>
<th>Key Benefit</th>
<th>Application Temperature</th>
<th>Curing Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>SikaForce®-7777</td>
<td>2C PU</td>
<td>Aluminum e-coated Materials, Plastic Substrates</td>
<td>Wide Adhesion Range</td>
<td>RT</td>
<td>RT</td>
</tr>
<tr>
<td>SikaForce®-7888</td>
<td>2C PU</td>
<td>Aluminum e-coated Materials, Plastic Substrates</td>
<td>Wide Adhesion Range</td>
<td>RT</td>
<td>RT</td>
</tr>
<tr>
<td>Sikamelt®-9676 FC</td>
<td>1C PU/HM</td>
<td>Plastic Substrates</td>
<td>Cost Efficiency</td>
<td>140°C</td>
<td>RT / Moisture</td>
</tr>
<tr>
<td>Sikapower®-477 R</td>
<td>2C Epoxy</td>
<td>Aluminum, Steel, Composites</td>
<td>Cold Curing, Cash Resistant</td>
<td>RT</td>
<td>RT / 180°C</td>
</tr>
<tr>
<td>Sikapower®-497</td>
<td>1C Epoxy</td>
<td>Aluminum, Steel, Composites</td>
<td>Crash Resistant</td>
<td>RT</td>
<td>180°C</td>
</tr>
<tr>
<td>Sikapower®-498</td>
<td>1C Epoxy</td>
<td>Steel, Composites</td>
<td>Crash Resistant, Adhesion on Oily Metals</td>
<td>50°C</td>
<td>180°C</td>
</tr>
</tbody>
</table>

MORE THAN 3 MILLION SPOILERS ARE BONDED EACH YEAR WITH SIKA TECHNOLOGY
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 headlamps 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 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 offers 1C and 2C Sikasil® silicones with excellent heat resistance (a critical requirement for fog lamps).

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

TECHNOLOGY OVERVIEW – HEADLAMP BONDING

<table>
<thead>
<tr>
<th>Product</th>
<th>Property</th>
<th>Technology</th>
<th>Key Benefit</th>
<th>Heat Resistance</th>
<th>Application Temperature</th>
<th>Approximate Time to Leakage Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sikaflex®-630 HD-2</td>
<td>1C PU</td>
<td>High cost Efficiency Combined with Excellent Performance</td>
<td>Very Good</td>
<td>95°C</td>
<td>1 – 10 min. ¹</td>
<td></td>
</tr>
<tr>
<td>Sikasil®AS-785</td>
<td>2C Silicone</td>
<td>High UV- and Temperature Resistance</td>
<td>Excellent</td>
<td>Room Temperature</td>
<td>1 – 20 min. ¹</td>
<td></td>
</tr>
<tr>
<td>Sikasil®AS-70</td>
<td>1C Silicone</td>
<td>Simple Processing</td>
<td>Excellent</td>
<td>Room Temperature</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

¹ Depends on Pressure and Design

HEADLAMP BONDING
Safe, Bright and Reliable Solutions

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25 MILLION HEADLAMPS BONDED WITH SIKA ADHESIVE TECHNOLOGIES LIGHT THE WAY FOR MORE 12 MILLION VEHICLES ANNUALLY
**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 SikaPrime®-207 is not only a universal one-step primer, but is also UV-detectable which enables the detection of pre-treatment for in-line quality control. Sika pretreatment agents help to ensure highly reproducible and safe processes. New Sika® Primer-207 is a universal one-step primer.

**APPLIED TECHNOLOGIES**

**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

**APPLICATIONS**

- Panorama Roof Module bonded with Sikafl ex®
- Sun Roof bonded with SikaForce®
- Glass Bonding bonded with Sikafl ex®

**TECHNOLOGY OVERVIEW – ROOF MODULE BONDING**

**PRODUCTS**

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sikafl ex®-250 PC</td>
<td>1C PU</td>
<td>No</td>
<td>Good</td>
<td>Excellent</td>
<td>Medium</td>
<td>60</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Sikafl ex®-270 + SikaBooster® AC-30</td>
<td>1C PU</td>
<td>Yes</td>
<td>Excellent</td>
<td>Very Good</td>
<td>Medium</td>
<td>55</td>
<td>30</td>
<td>3</td>
</tr>
<tr>
<td>Sikafl ex®-271 + SikaBooster® 20 W</td>
<td>1C PU</td>
<td>Yes</td>
<td>Excellent</td>
<td>Very Good</td>
<td>High</td>
<td>65</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>SikaForce®-7550</td>
<td>2C PU</td>
<td>Yes</td>
<td>Good</td>
<td>Good</td>
<td>High</td>
<td>70</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>Sikafl ex®-254 + SikaBooster 20 W</td>
<td>1C PU</td>
<td>Yes</td>
<td>Excellent</td>
<td>Very Good</td>
<td>Low</td>
<td>45</td>
<td>30</td>
<td>5</td>
</tr>
</tbody>
</table>

**2 MILLION ROOF MODULES ASSEMBLED ANNUALLY WITH Sika TECHNOLOGY ALLOW FOR CLEARER VIEWS**
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 $\Delta/\alpha$ (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.

APPLICATIONS
- Electronic Control Units
- Sensors
- Battery housings and Power Distribution Centers

BENEFITS
- PVC- and solvent-free
- Broad adhesion to a range of plastics and metals
- Aging and hydrolysis-resistant up to 120°C
- Vibration damping
- Products meet or exceed the broad range of industry approval requirements

TECHNOLOGY OVERVIEW – LIGHTWEIGHT BONDING

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

ELECTRONIC POTTING
Safer Vehicles: Approved Technology for High-Performance Applications

WITH MORE THAN TWO DECADES of experience in electronic potting, our range of solutions meet or exceed the stringent requirements for both the automotive industry and regulators. 2C PU SikaForce® products, as well as 1C and 2C Sikasil® silicones, are certified to VDE standards and fulfill a range of application requirements including hydrolysis resistance, low temperature flexibility and vibration damping.
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 aluminium, 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 Sikafl ex® + Sika® Booster and SikaForce® products, which not only help stiff en 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 SikaLamp® 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

25 MILLION VEHICLES
PRODUCED ANNUALLY WORLDWIDE CONTAIN SIKA LAMINATION ADHESIVES

OUR BODY SHOP ADHESIVES HELP MAKE
20 MILLION VEHICLES STRONGER AND SAFER EACH YEAR

150,000 LITERS
OF VOCs WERE REDUCED THROUGH THE USE OF SIKA’S PRIMERLESS TO GLASS WATER-BASED PRE-TREATMENT SYSTEMS

MORE THAN
65 MILLION
CAR WINDOWS ARE BONDED DURING ASSEMBLY USING SIKAFLEX®

SIKA HAS MORE THAN
17,000 EMPLOYEES
IN MORE THAN
90 COUNTRIES

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

MORE THAN
20% 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

20 MILLION
INTERIOR NOISE REDUCTION IN VEHICLES THANKS TO SIKA’S ACOUSTIC SOLUTIONS