BODY SHOP ADHESIVES
STRONGER BODY SHOP BONDS START WITH SIKA

LIGHTER | STRONGER | SAFER | QUIETER | GREENER

BUILDING TRUST

BUILDING STRONGER STRUCTURES.

MOVING BODY SHOP ADHESIVES FORWARD

From multi-material joining to crash durability and corrosion protection, today's vehicle structures demand more from every bond. At Sika, we help move body shop adhesives forward through advanced materials, faster processes, and solutions that reduce weight without sacrificing safety.

START WITH SIKA

With a full suite of bonding, damping, sealing, and reinforcing solutions, Sika is a key strategic partner for both OEMs and component suppliers. By collaborating on advanced body shop assembly development projects and engaging early in program development, we help customers optimize designs, identify cost savings, and reduce complexity.

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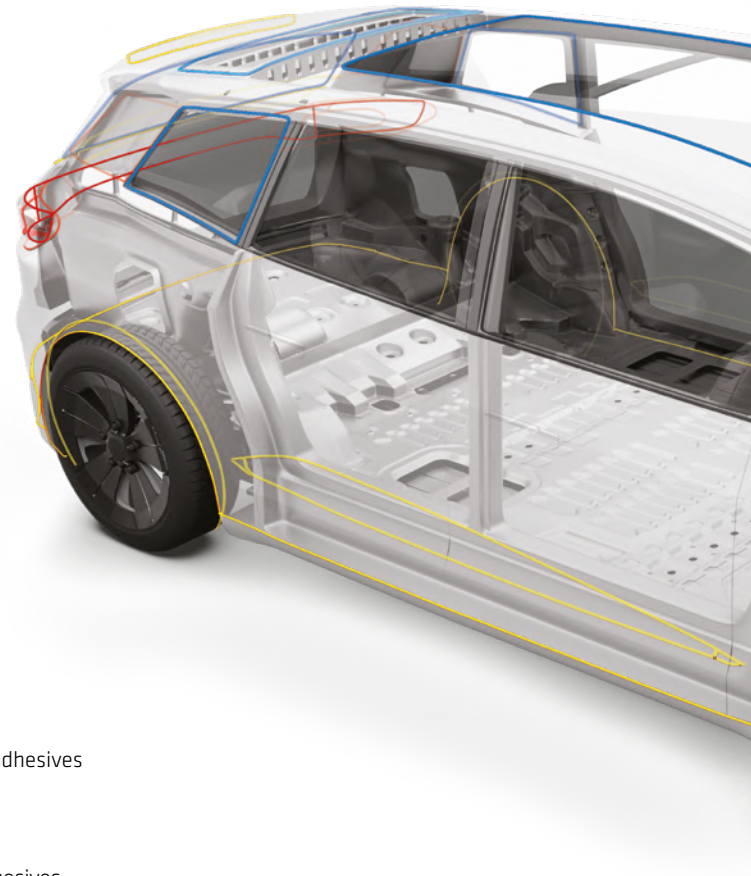
BODY SHOP ADHESIVES

Application Overview

LIGHTER, STRONGER, SAFER, GREENER

Sustainable vehicle design has become a major factor in car production. Performance, economic, legislative, and environmental targets all influence OEM thinking and are driving the need for durable body shop adhesives that can improve stiffness, crash toughness, and fatigue performance - as well as contribute to weight reduction.

As body shop joining has evolved from purely mechanical fastening techniques to hybrid joining including extensive use of adhesives, our versatile, one-component SikaPower® product range has become the go-to solution for new vehicle production including the challenges introduced in joining the same, new, or different combinations of materials. Crash-resistance performance of a vehicle becomes highly visible only in the event of a crash. In this case, it is vitally important that structural adhesives provide exceptional impact resistance to withstand dynamic stresses during collision events by absorbing as much energy as possible. SikaPower® products are formulated specifically for these challenging applications.



LOW BAKE COMPATIBILITY

Modern OEMs are pushing toward more energy-efficient manufacturing – and SikaPower® is already there. Our structural adhesives include low bake-capable grades designed to cure at reduced oven temperatures. These solutions help manufacturers lower energy consumption, reduce CO2 emissions, and maintain line flexibility – without sacrificing performance or throughput. Low bake options are ideal for mixed-material construction and lightweight body structures, aligning with both sustainability goals and modern assembly needs.

SikaPower® BODY SHOP ADHESIVES

Our body shop adhesive product portfolio covers all bonding requirements: structural, crash toughened, hem flange, and our newest mixed material bonding products that address specifically Delta-Alpha challenges.

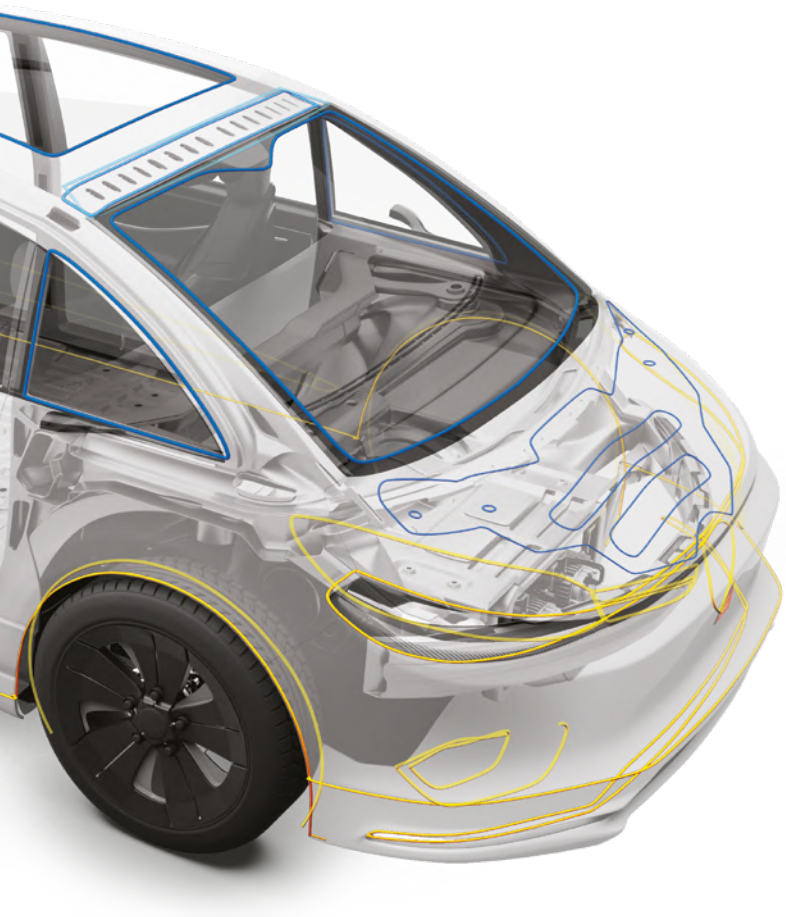
- SikaPower®-482, -492 and -494 structural adhesives
- SikaPower®-474 low bake structural adhesive
- SikaPower®-487, -493, -497, -498/3, -499 and -553 crash toughened adhesives
- SikaPower®-540, -545 and -558 low bake crash toughened adhesives
- SikaPower®-468 G, -492 G, -493 G, -494 G and -550 G hem-flange adhesives
- SikaPower®-510 G MBX and -533 MBX enable mixed material bonding

ANTI-FLUTTER ADHESIVES & SEALANTS

Application Overview

PRODUCT KEY

- Structural adhesives
- Crash toughened adhesives
- Hem-flange adhesives
- Anti-flutter adhesives
- Sealants



SikaSeal® ANTI-FLUTTER ADHESIVES

SikaSeal® rubber based products are typically used on body structure areas, roof rails, and hang-on parts such as doors, hoods, and tailgates.

At the OEM, or at the tier, our full-line portfolio covers the entire vehicle, with products specifically formulated and tested to avoid bond-line-read- through (BLRT).

- SikaSeal®-700 – non expanding
- SikaSeal®-710 LS2 – medium expending
- SikaSeal®-710 SR – high sag resistance
- SikaSeal®-712 – high corrosion resistance
- SikaSeal®-730 UWS – universal weld sealer
- SikaSeal®-832 – high performance anti-flutter sealer

LOW BAKE COMPATIBILITY

Smarter sealing for lower bake conditions

As OEMs shift toward more sustainable manufacturing, SikaSeal® products are designed to meet the moment. Our low bake-capable seam sealers and pumpable solutions cure at reduced temperatures, supporting energy savings and lower emissions on the production line.

SikaSeal® technologies maintain excellent adhesion and long-term durability – even under the lower thermal conditions used in next-generation paint and e-coat ovens. Whether used for seam sealing, cavity sealing, or weld-line protection, these materials ensure process reliability without compromising throughput or quality. With SikaSeal®, low bake means high performance.

All SikaSeal® materials can be applied as continuous bead, spotted bead or dot, or as a combination of all three applications.

>25 MILLION VEHICLES MADE LIGHTER, STRONGER AND SAFER EACH YEAR

Each year our body shop adhesives help make more than 25 million vehicles lighter, stronger and safer, enabling weight reduction without impacting vehicle dynamics and safety, a critical engineering challenge. Crash toughened bonding is now the most important joining process in the body shop, due to the direct influences of the car body structure sections during a crash event. SikaPower® products fulfill or exceed the customer requirements.

BODY SHOP ADHESIVES

Benefits Beyond the Bond

STRONGER BONDS START WITH SIKA as evidenced by decades of high-performance applications and more than 25 million vehicles assembled annually at leading OEMs. Our full-range portfolio of SikaPower® and SikaSeal® adhesives is used throughout the vehicle and services all body shop categories: Crash toughened, structural, hem-flange, and anti-flutter products. Achieving good bonds, however, is not only determined by the products alone. They begin early in the design process with partnerships, in-depth understanding of design challenges, targeted performance parameters and substantial review of the materials to be joined. The end result is better relationships, and better vehicles.

LOW BAKE COMPATIBILITY

Stronger bonds. Lower temps. Greater efficiency. Sika's body shop adhesives are engineered to meet the demands of modern, energy-efficient production lines. Both SikaPower® and SikaSeal® include low bake-capable technologies that cure effectively at reduced over temperatures – helping OEMs cut energy use, lower CO2 emissions, and maintain production speed without compromising bond performance. Whether used for structural crash zones, sealing, or vibration control, these products ensure consistent, high-strength adhesion across a variety of materials – even in today's evolving manufacturing environments. Low bake-ready. Production proven. Just another reason to Start With Sika.

1

Crash beams without (left) and with SikaPower® (right)

CRASH TOUGHENED BONDING

SikaPower® crash toughened adhesives contribute to a significant increase in energy absorption during crash events, which makes them an ideal solution in comparison to traditional metal joining techniques. Superior impact peel values and reduction of car body intrusion space make SikaPower® products an increasingly effective bonding solution for high-performance vehicles. Lab tests on crash beams confirm intrusion reduction of 20% with the use of SikaPower® crash toughened adhesives.

2

SikaPower® application at shock tower

STRUCTURAL BONDING

Structural bonding with SikaPower® delivers a long list of performance and process benefits, including increased car body stiffness, excellent oil absorption, wash-out resistance, long-term corrosion resistance, a substantial reduction in the number of spot weld points,and long shelf life.

HEM-FLANGE BONDING

Although typically used with hang-on parts, the inclusion of glass beads also makes SikaPower® products suitable for use in body structures for hem-flange bonding. The advantage of the glass beads includes "zero gap" avoidance, which leads to better adhesion, mechanical performance, aging, and corrosion properties.

ANTI-FLUTTER MATERIALS

In anti-flutter and spot-welding paste sealing applications, SikaSeal® adhesives provide excellent adhesion to standard OEM steel and aluminum substrates. They offer vibration-free panel isolation joining, while also protecting durable metals against age-related corrosion from the elements. SikaSeal® adhesives are outstanding in preventing bond-line-read-through (BLRT) and do not reduce the strength of welding spots. They can also be utilized as a spot welds paste adhesive.

LIGHTER WEIGHT

SikaPower® – Car Body Improvement

WEIGHT REDUCTION

From our first developments more than three decades ago, SikaPower® adhesives are now in their fifth generation of innovation. We offer an extensive product range addressing each area of performance expectation for body assembly, including todays and future demands for mixed material bonding.

	Category	Impact Peel (N/mm)	Min Curing Time (min / °C)"	Lap Shear Strength [MPa]	E-modulus [Mpa]	Shelf Life (Months)
SikaPower®-468 G	Structural	-	15/160	27	3000	6
SikaPower®-470	Structural	-	15/160	27	3000	6
SikaPower®-480	Structural	16	15/ 160	30	2400	9
SikaPower®-482	Structural	18	15/160	30	2200	10
SikaPower®-474	Structural / Low bake	-	10/140	28	3300	6
SikaPower®-487	Semi-crash	38	10/155	30	2000	6
SikaPower®-492	Semi-crash	27	15/160	28	1600	9
SikaPower®-493	Crash	38	15/160	28	1450	9
SikaPower®-494	Semi-crash	32	15/160	30	1700	10
SikaPower®-550 G	Semi-crash	27	15/160	30	2000	9
SikaPower®-497	Crash	40	15/160	30	2000	10
SikaPower®-498/3	Crash	40	15/160	30	2000	10
SikaPower®-499	Crash	40	15/160	30	2000	10
SikaPower®-553	Crash	40	15/160	32	1500	10
SikaPower®-540	Crash / low bake	39	10/150	30	2000	6
SikaPower®-545	Crash / low bake	38	15/150	30	1900	10
SikaPower®-558	Crash / low bake	24	10/140	30	2300	6
SikaPower®-510 MBX	Mixed -bonding	40	15/165	20	250	3
SikaPower®-533 MBX	Mixed-bonding	46	15/160	27	850	10

SIKASEAL® FULL RANGE PORTFOLIO

Performance You Can't See – Bond-Line-Read-Through Prevention

SIKA OFFERS TAILOR-MADE SOLUTIONS TO MULTIPLE BODY SHOP BONDING CHALLENGES

You typically cannot win a race with one entrant, nor can you build the body structure of the future with one product that limits design flexibility. Sika's extensive range of SikaSeal® anti-flutter and mastic products for BiW (Body-In-White) offers tailored products to specific challenges faced in the design of tomorrow's vehicles.

SikaSeal® BODY SHOP ANTI-FLUTTER ADHESIVES

Product	BLRT resistance	Aluminum	Cold pumpable	Sag / wash out	Expansion	
					Low (0-20%)	Medium (20-80%)
SikaSeal®-700	+	+	++	+	+	–
SikaSeal®-710 LS2	++	+	++	+	–	+
SikaSeal®-710 SR	++	+	+	++	–	+
SikaSeal®-712	++	++	++	+	–	+
SikaSeal®-832	+	+	++	+	–	–

++ Preferred Technology
\+ Standard option
– Not Suitable

OPEN DESIGN POSSIBILITIES AND FILL THE GAP

SikaSeal®-832 is a highly expandable, pumpable cavity filler and high perfomance anti-flutter sealer.

SikaSeal®-832 is applied in the body shop and expands in the e-coat oven. This product can be applied at room temperature using conventional pumping equipment; reducing the need for tooling costs.

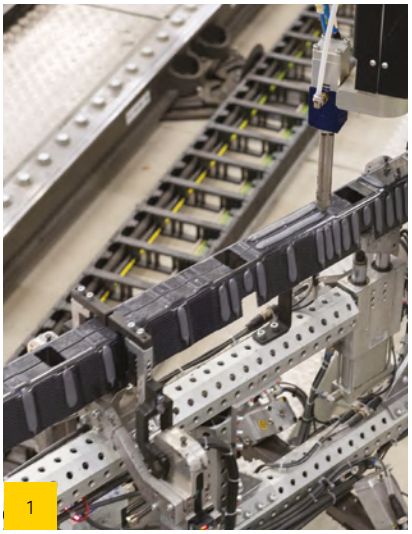
Automotive News PACE AWARD 2025 FINALIST

MULTI MATERIAL DESIGN

SikaPower® MBX performance to compensate Delta Alpha

THE SikaPower® PRODUCT PORTFOLIO includes crash toughened, structural and e-coatable adhesives; all formulated to meet or exceed demanding design performance. All SikaPower® adhesives are available with or without glass spheres, to enable the required minimum bond line distance between substrates and to control bondline adhesive thickness. Common substrates in body shop applications for SikaPower® adhesives include all types of steel, aluminum and carbon fiber reinforced plastics (CFRP), and combinations of these substrates, in mixed material joining. Sika also answers the call for even more unique adhesives for mixed material joining with NEW SikaPower® MBX; formulated specifically to account for the differences in thermal expansion and contraction coefficients that must be considered during both the design and assembly process.

MBX APPLICATIONS	BENEFITS
■ Crash-relevant body structures	■ Superior performance – hybrid adhesive systems with high-energy absorption
■ Mixed material bonding throughout the vehicle	■ Excellent aging durability
■ Hem-flange applications	■ Increased car body stiffness – high e-modulus and Tg
	■ Cost saving and sustainable – reduction of spot welding points
	■ Excellent wash-out performance
	■ Superior mixed material bonding



1 Central tunnel bonding (CFRP - steel) **2** Rocker bonding (CFRP - steel)

NEW TECHNOLOGY:
MIXED BONDING EXCELLENCE (MBX)

Mixed material joining of steel – aluminum, steel – carbon fiber or aluminum – carbon fiber is possible with SikaPower® Mixed Bonding Excellence (MBX) products, which provides support to resolve Delta-Alpha issues. At the same time it provides galvanic separation that improves protection against corrosion and increases vehicle durability. This technology is unique to Sika.

CRASH TOUGHENED AND REPAIR APPLICATIONS

Following global automotive megatrends, technical requirements on one component crash toughened adhesives are continually increasing. A large variety of bonding surface substrates including many steel types, several aluminum and a growing number of fiber grades are moving performance challenges to higher requirements and specification levels.

SikaPower® MBX technology and advanced car body design are helping the automotive industry to solve the challenges of differences in thermal expansion, typically experienced with mixed material bonding. The solution helps OEMS to realize the technical and commercial benefits of modern car body design. New assembly challenges presented by BEV and hybrid vehicle designs can readily be addressed within our extensive product offering. To stay ahead of the curve, Sika continues to develop the highest performance level BiW adhesives for todays customer needs, and for their future vehicles.

HIGHEST PERFORMANCE FOR CRASH BODY REPAIR - EXCELLENT CRASH PERFORMANCE FOR MAXIMUM SAFETY

Sika technologies also follow the vehicle into service, meeting same quality demands including strength, application properties and corrosion resistance when vehicles enter the repair shop. The high performance product range for repair addresses this OEM requirement and allows vehicles to return to service "as good as new". The two component epoxy technology of SikaPower®-477 R provides the highest levels of toughness without compromising on mechanical strength and static load capacity. Sika's toughened epoxy adhesives outperform the state-of-the-art two component epoxy adhesives – either brittle or flexibilized formulations – in terms of durability, fatigue and impact resistance. As a result they are becoming the preferred choice for crash body repair in the automotive aftermarket.

APPLICATIONS	BENEFITS
■ Car body panel repair	■ Unmatched impact resistance
■ Body structure repair	■ Exceptional energy absorption capacity
	■ High mechanical strength
	■ Excellent crack resistance
	■ Superior fatigue performance
	■ Convenient uTAH cartridge packaging

TYPICAL APPLICATIONS FOR THE SikaPower® CRASH TOUGHENED ADHESIVES

1

CENTER TUNNEL AND FLOOR PANEL SECTION
Crash toughened mixed material adhesive application.

2

SIDE WALL AREA
All side wall applications with SikaPower® adhesive.

3

SIDE WALL FRAME
Crash relevant part of the vehicle is bonded with SikaPower.®

QUIETER VEHICLES START WITH SIKA

SikaSeal® adhesives are outstanding in preventing bond-line-read-through (BLRT) and do not reduce the strength of welding spots. In anti-flutter and spot welding paste sealing applications, SikaSeal® adhesives provide excellent adhesion to standard OEM steel and aluminum substrates, as well as protecting the metal against age-related corrosion. They can also be utilized as a spot welding paste.

ANTI-FLUTTER ADHESIVES

Unique Solutions to Prevent Bond-Line-Read-Through

SikaSeal® PRODUCTS CARRY UNIQUE CHARACTERISTICS; their contribution to the prevention of bond-line-read-through. The properties of SikaSeal® are based on proprietary building blocks yielding matrix designed materials that compensate for typical read through experienced in joining techniques. Bond-line-read-through prevention, and the compensation for it, becomes even more important as thinner gauge panels and lighter weight materials are introduced in design. Further, Sika advanced understanding of delta-alpha ($\Delta\alpha$) effects – including those of our SikaSeal® products – has contributed over decades to the development of our rubber-based technology.

SikaSeal® adhesives are delivered as bulk material and applied by cold or warm pumping equipment. In most cases, piping at the end of the dispensing system, especially between doser and nozzle, is pre-heated in order to ensure the same application properties over all climate seasons. Applications are preferably done automatically by robot but in some cases manual application is implemented as well.

APPLICATION

- **Doors** Body Structure
- **Hoods** Body Structure
- **Roof** Inter-welds

BENEFITS

- Prevents bond-line-read-through – unique chemical matrix design
- Enables weight saving – allows for use of thinner metal sheets
- Excellent adhesion on different steel and aluminum grades
- Sustainable – cold pumpability = reduced energy demand

MAIN MATERIAL PROPERTIES

- Low or no volumetric expansion
- Cold pumpable
- High resistance against wash out
- Shelf life is product specific, in general > 6 months

1

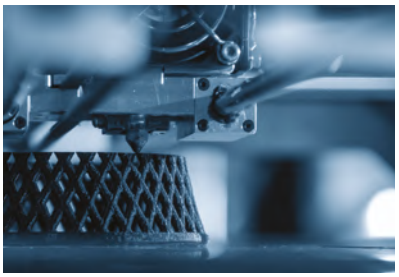
2

1 Roof cross member anti-flutter application **2** Finished roof application to the body frame

BUILDING TRUST EVERY DAY

Protecting the past. Building the present. Moving the Future Forward

Better cars aren't the only thing we build. Sika's commitment to innovation is driven by a passion for developing advanced solutions that enhance vehicle performance, safety, comfort and sustainability.



3D PROTOTYPING |

At the forefront of 3D printing innovation, Sika enables rapid prototyping for faster concept validation and shorter development cycles. Their material technologies support the creation of durable, functional prototypes that simulate final performance. This allows automotive engineers to experiment, iterate, and optimize designs more efficiently than ever before.

AUTOMATION |

Sika is transforming automotive manufacturing through advanced automation technologies that improve speed, consistency, and cost-efficiency on the assembly line. By integrating robotics and automated application systems, Sika helps reduce cycle times and labor costs while boosting product quality. Their solutions are tailored to the evolving needs of OEMs, ensuring flexibility across vehicle platforms.

DIGITALIZATION |

Digitalization marks a major shift in how vehicles are designed and built, and Sika is embracing this transformation. Through smart materials and digital integration, Sika enables data-driven design processes, quality assurance, and predictive maintenance. These innovations create a more connected, efficient, and adaptive production environment for the automotive industry.

EV IMPROVEMENT |

Electric vehicles (EVs) are rapidly evolving, and Sika plays a key role in enabling this progress. Their products address critical EV challenges like battery safety, lightweight construction, and thermal regulation. By optimizing structural integrity and material performance, Sika helps extend driving range, improve energy efficiency, and support next-generation EV platforms.

VEHICLE LIGHTWEIGHTING |

Sika helps automakers achieve critical lightweighting goals without compromising strength, safety, or performance. Their adhesives and reinforcements enable the use of thinner substrates, lightweight composites, and multi-material designs. As regulations tighten and consumers demand higher efficiency, Sika's technologies play a pivotal role in enabling greener, leaner vehicles.

COMFORT AND SAFETY |

Sika contributes significantly to the development of vehicles that are both safer and more comfortable. Their technologies enhance acoustic insulation, structural integrity, and passenger protection. From noise-damping materials to high strength adhesives, Sika's products help OEMs deliver premium driving experiences with confidence and compliance.

GLOBAL REACH |

Sika's global presence ensures consistent product availability and technical expertise across all major automotive markets. Their local teams offer on-site support and rapid response, helping OEMs navigate regional challenges while maintaining high standards. This international infrastructure fosters agility and reliability in an increasingly globalized industry.

INTEGRATED SOLUTIONS |

Sika delivers a comprehensive suite of integrated solutions spanning bonding, sealing, damping, and reinforcing functions. Their cross-functional products are designed to work in harmony, simplifying assembly workflows and reducing complexity. This systems-based approach drives performance and compatibility across every vehicle structure.

VALUE ADDED INNOVATION |

Innovation is at the core of Sika's value proposition, with a constant focus on improving product performance and customer outcomes. Their R&D teams develop cutting-edge solutions that address evolving trends in electrification, sustainability, and design flexibility. These innovations aren't just technical upgrades—they provide real-world value by enhancing manufacturing efficiency and product longevity.

BETTER VEHICLES START WITH SIKA

LIGHTER | STRONGER | SAFER | QUIETER | GREENER

SUSTAINABILITY STARTS WITH SIKA

AT SIKA, WE BELIEVE building a better future starts with more sustainable vehicles. From raw materials to final assembly, we develop advanced bonding, sealing, and reinforcement solutions that help reduce emissions, improve energy efficiency, and support circular design.

LIGHTER, CLEANER VEHICLES

SikaReinforcer® technologies reduce the need for heavy steel reinforcement, allowing for thinner gauge metals and fewer weld points. This not only improves crash safety and stiffness but also leads to measurable reductions in fuel consumption and vehicle weight.

LOW BAKE. HIGH IMPACT

As the shift to electric and hybrid vehicles accelerates, Sika's low bake technologies are enabling energy-efficient manufacturing. Our full portfolio of sealants, adhesives, and acoustic materials cures at lower oven temperatures – helping OEMs reduce operational costs, decrease energy consumption, and meet their sustainability targets. Some products cure at just 135–140°C, saving up to 15 minutes per cycle in the paint shop.

LOWER CARBON, START TO FINISH

SikaPower® adhesives help reduce spot welds by up to 1,000 welds per car, with no compromise on crash safety or rigidity.

BUILT FOR TOMORROW

Sika had anticipated the shift to the new EHS standards early on, by creating Purform®, with ultra-low MDI content. Sika's Purform® technology eliminates this complexity by reducing hazardous labeling requirements, enabling safer handling across production lines. From recyclable chemistries to energy-saving materials, Sika is investing in next-generation innovation to support the transition to more sustainable mobility. Our solutions address every stage of the vehicle lifecycle – helping OEMs and suppliers meet aggressive carbon-reduction goals without sacrificing performance or production speed.

Learn more: **usa.sika.com/sustainability**

START WITH SIKA

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

3 MILLION
HEADLINERS
LAMINATED WITH SIKATHERM® ADD COMFORT TO VEHICLE INTERIORS ANNUALLY.

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

30 MILLION VEHICLES
PRODUCED ANNUALLY WORLDWIDE ARE BONDED WITH SIKAPOWER® AND SIKASEAL® ADHESIVES.

1 MILLION
GLOVE BOXES
RECEIVE VELVETY FEELS WHEN USING SIKATHERM® FOR FLOCKING FIXATION.

10 MILLION
DOORS
ARE WATER PROVEN BY USING SIKAMELT® PRESSURE SENSITIVE ADHESIVE FOR ASSEMBLY AND SEALING.

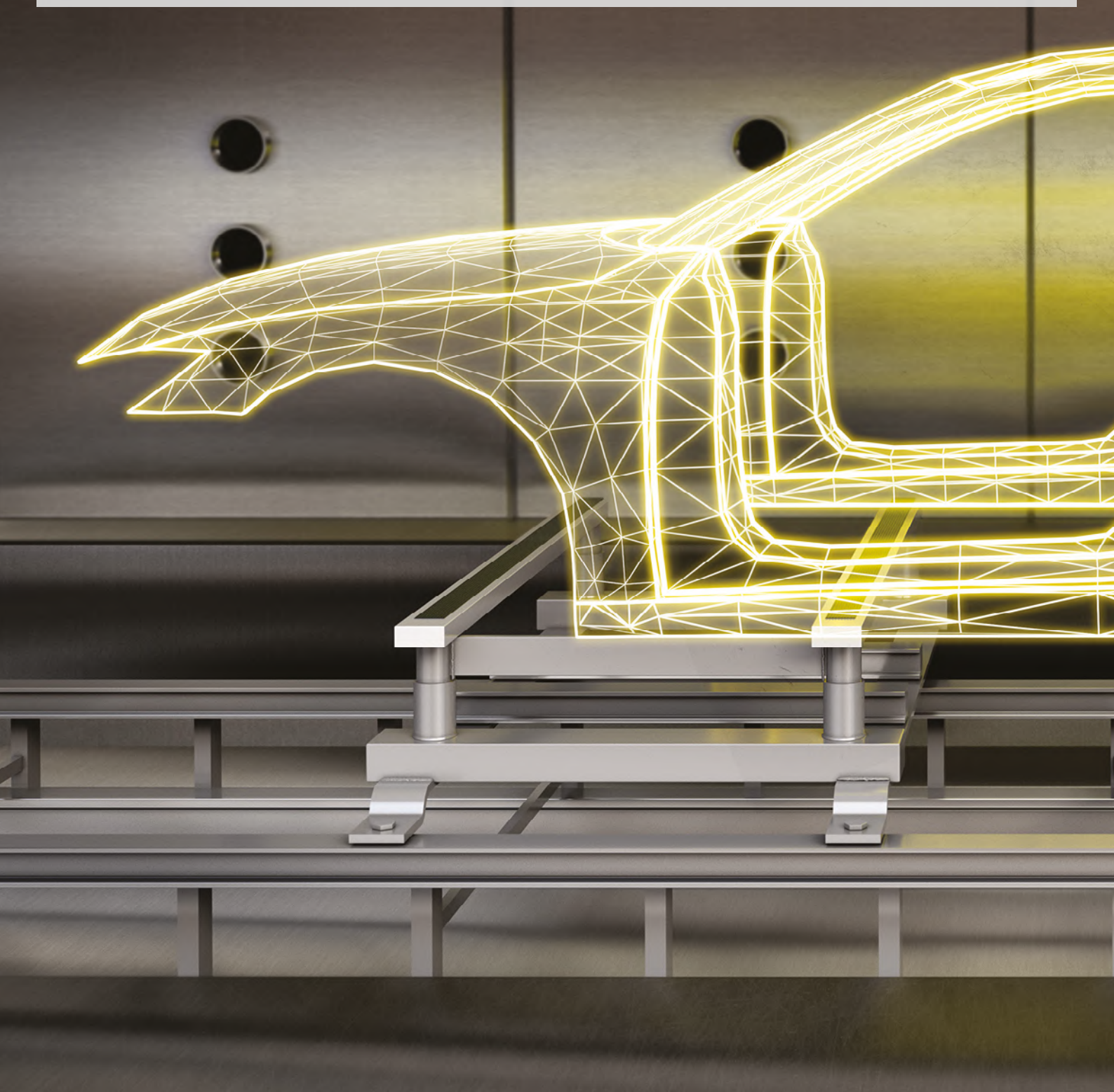
2 MILLION
LOAD FLOORS
LAMINATED WITH SIKAMELT® PU HOT TO CHANGE YOUR TRUNK TO A HIGHER AMBIENT.

1 MILLION SEAT
HEAT SEATING SYSTEMS
ASSEMBLED WITH SIKAMELT-280 FR GUARANTEE WARMTH AND COMFORT PERFORMANCE IN THE CAR.

LOW BAKE SOLUTIONS FOR A SMARTER BODY SHOP

LOWER ENERGY. HIGHER PERFORMANCE. NO COMPROMISE.

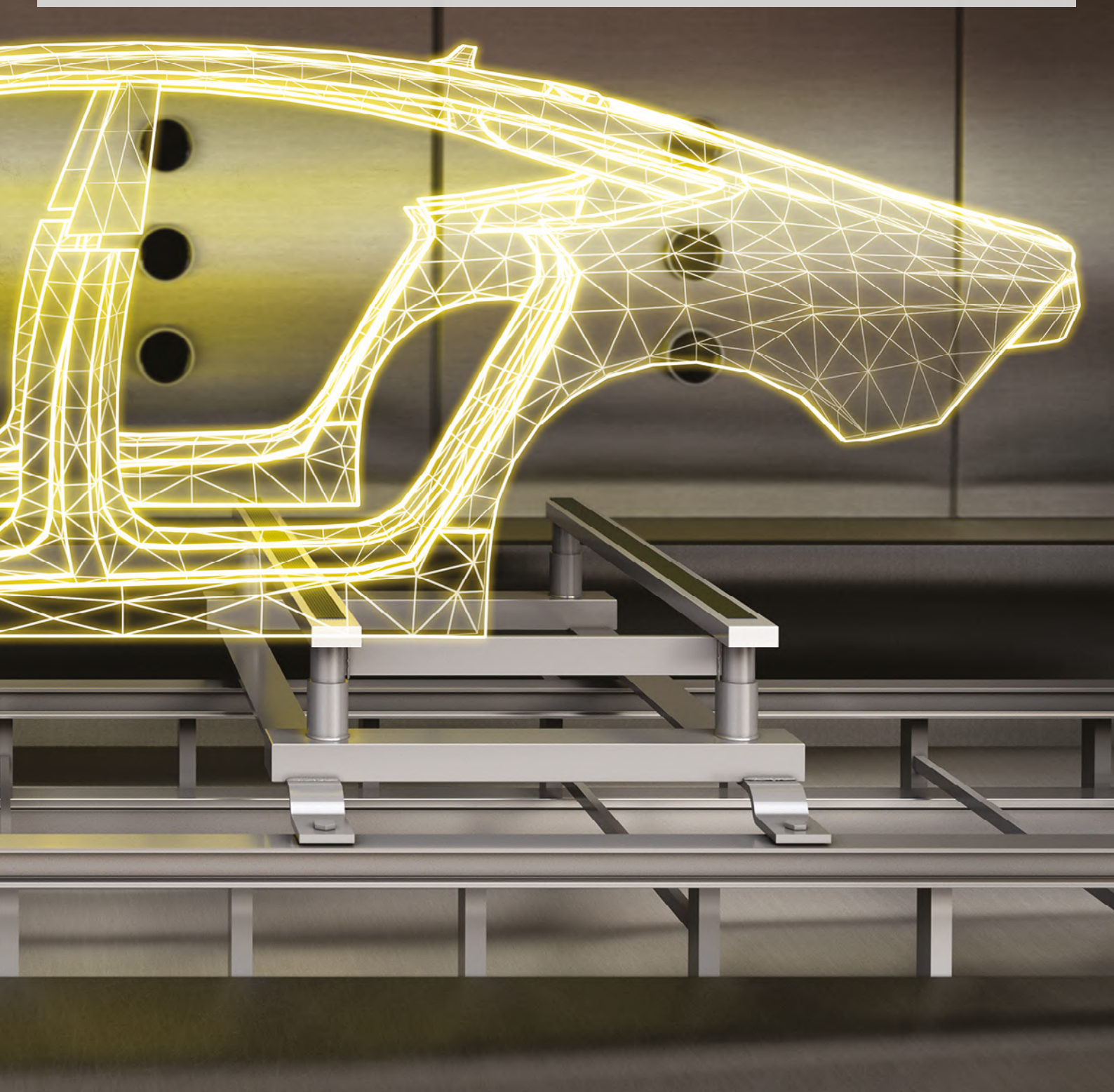
As OEMs aim to reduce production emissions and energy costs, Sika is leading the shift with body shop adhesives designed for lower bake processes. Our portfolio of technologies includes low bake-capable formulations that cure effectively at reduced oven temperatures – without sacrificing bond strength, durability, or process reliability.



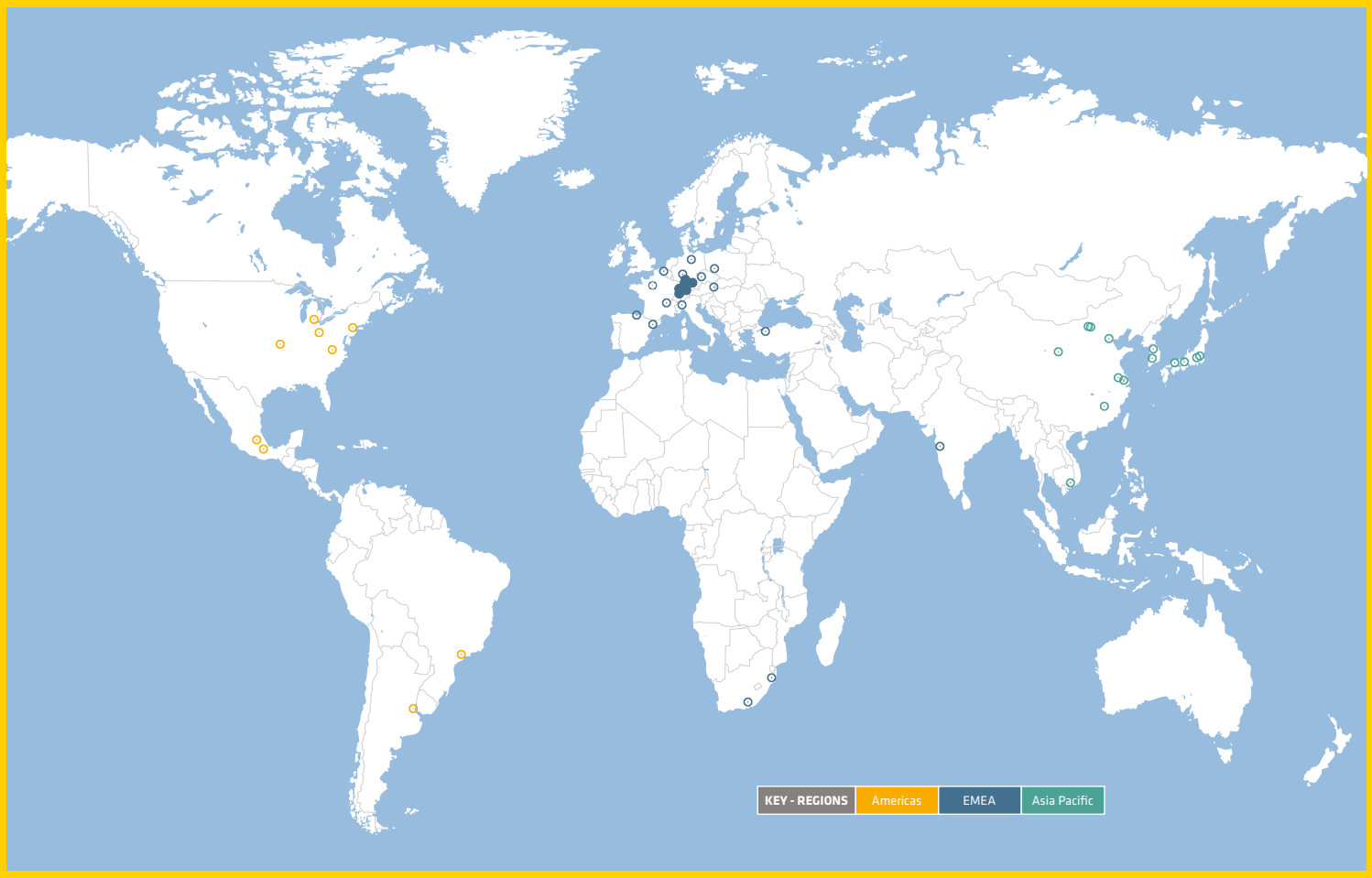
WHY LOW BAKE MATTERS

- Reduces energy consumption and operational costs in the curing oven
- Supports sustainability goals by cutting CO2 emissions during production
- Expands process flexibility – enabling bonding earlier in the build or in cooler cure zones
- Maintains full performance in crash zones, structural bonds, seam sealing, and vibration damping

Sika's low bake-ready adhesives meet the rigorous requirements of modern vehicle programs – from mixed-material car bodies vehicle structures architectures to traditional steel structures – while helping manufacturers hit their environmental targets. Stronger bonds. Better efficiency. Built to move manufacturing forward.



GLOBAL REACH BUT LOCAL PARTNERSHIP



START WITH SIKA
SCAN THE QR CODE BELOW:

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

Certified Quality System ISO 9001/EN 29001 since 1986

Certified Management System ISO 14001 since 1997

www.sikaautomotive.com

BUILDING TRUST

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