

JOINING IN CAR BODY ENGINEERING 2023

APRIL 18-20, 2023

BAD NAUHEIM, GERMANY | ONLINE

MODULE 1

TUESDAY, APRIL 18, 2023

MODULE 1:

ADHESIVE BONDING AND HYBRID BONDING

8.40 am Welcome and conference introduction

Dr. Dirk Meine, Automotive Circle, DE

BONDING CONCEPTS

9.00 am Adhesive bonding works – even with few joining points

Moritz Huf, BMW Group, DE;

Dr. Holger Fricke, Fraunhofer Institute for Manufacturing Technology and Advanced Materials (IFAM), DE

9.30 am Rapid pre-curing of epoxy-based structural adhesives for body in white applications

Andreas Fricke, Volkswagen AG, DE;

Güven Celebi, Technical University Braunschweig, Institute of Joining and Welding (ifs), DE

SUSTAINABILITY CONSIDERATIONS

10.00 am The global goal to contribute to CO₂ footprint reduction in automotive production / smart materials and solutions in design, production and logistics for body shop and e-mobility systems

Holger Schuh & Michael Klotz, Henkel AG & Co KGaA, DE

10.30 am Meet the Speakers | Coffee and contacts

11.15 am Sustainability in the life cycle of body shop adhesive bonding

Urs Rheinegger, Sika AG, CH

11.45 am New advanced curing structural adhesives enabling modern electric vehicle design and significant energy savings in body shop

Dr. Felix Koch, DuPont Specialty Electronic Materials Switzerland GmbH, CH

12.15 pm Adhesives curing temperature reduction and its implications

Gurkan Sonmet, Jaguar Land Rover Ltd., UK

VIRTUAL PRESENTATION

12.45 pm Meet the Speakers | Lunch break

ADHESIVE APPLICATION AND QUALITY CONTROL

2.00 pm Packaging solutions to support precision, consistency and environmental impact of adhesive application

Christoffer Lampa & Peter Larsson, Fluid-Bag Ltd., FI

2.30 pm Future trends in dispensing technology

Sebastian Gries, Dürr Systems AG, DE

3.00 pm Innovative process monitoring in aluminum sheet production for maximum bonding performance

Dr. Ramona Tosone, AMAG Austria Metall AG, AT

3.30 pm Meet the Speakers | Coffee and contacts

4.00 pm Application concept of a new vibration-based measurement technique for the in-line quality assurance of structural bonded joints in car bodies within the scope of DIN 2304

Christian Gundlach, Technische Universität Braunschweig, Institute of Joining and Welding /Open Hybrid LabFactory e.V., DE

ADHESIVE BONDING IN E-MOBILITY

4.30 pm Rheology-based classification of adhesives for stencil printing of fuel cell sealings

Fabiano Indicatti, Robert Bosch GmbH, DE

5.00 pm Simulation of the thermal behavior of fuel cells: The influence of gap fillers, etc.

Tim Welters, Henkel AG & Co KGaA, DE

5.30 pm Laser-based preparation for adhesive joining and electrical bonding of battery housings

Edwin Büchter, Clean-Lasersysteme GmbH, DE

6.00 pm Meet the Speakers | Get together

7.00 pm Networking Night Module 1

(Subject to change. Status as of March 7, 2023)

Find more information at
WWW.AUTOMOTIVE-CIRCLE.COM



ADHESIVE BONDING AND HYBRID BONDING

MODERATORS:

Professor Dr. Klaus Dölger, Institute of Joining and Welding Technology (ifs), Technical University Braunschweig, DE

Professor Dr. Christian Lammel, IFF GmbH – Induktion, Fügetechnik, Fertigungstechnik, DE

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MODULE 2

THURSDAY, APRIL 20, 2023

**MODULE 2:
THERMAL AND MECHANICAL JOINING**

USING RESISTANCE

8.30 am Efficient car body production – current challenges in resistance spot welding

Dirk Altnau & Torsten Wegner, BMW Group, DE

9.00 am Teach caps for resistance spot welding and clinching

Florian Auernhammer, Volkswagen AG, DE

9.30 am Resistance spot riveting of mixed materials

*Graham Musgrove, Howmet Fastening Systems, US;
Udo Schulz, CenterLine Germany GmbH, DE*

10.00 am Meet the Speakers | Coffee and contacts

MECHANICAL INNOVATIONS

10.45 am Sustainability and versatility of self-piercing riveting – Innovative approaches and future trends

Prof. Marion Merklein, Friedrich-Alexander-Universität Erlangen-Nürnberg, Department of Mechanical Engineering, Institute of Manufacturing Technology (LFT), DE

11.15 am Volumelock: A new method of measuring SPR cross sections to rank solutions and predict joint strength

Dr. Paul Briskham, Atlas Copco IAS UK Ltd, UK

11.45 am New self-piercing hat nut for tight mechanical joints in steel and aluminum car body parts

Dr. Markus Hirschmann, Richard Bergner Verbindungstechnik GmbH & Co. KG, DE

12.15 pm Vision pre-hole centering to improve flow drill fastening processes with pre-holes

Andreas Kiefer, Ali Jamehbozorg, Atlas Copco – IAS Division,

12.45 pm Meet the Speakers | Lunch break

2.00 pm A new laser-assisted mechanical joining system with industrial production readiness

*Klaus Krastel, IPG Laser GmbH, DE;
Dr. Wolfgang Pfeiffer, Tox Pressotechnik GmbH & Co. KG, DE*

PRESS HARDENED STEELS

2.30 pm Analysis of welded joint fatigue performance on press hardening steel

Prof. Hardy Mohrbacher, Niobelcon b.v., BE

3.00 pm New hot forming steels – application potential under consideration of joining processes and manufacturing technologies

Jancko Banik & Johan Neher, Thyssenkrupp Steel Europe AG, DE

OEM CONCLUSIONS

3.30 pm The conference's OEM Advisory Board experts on trends and current challenges in car body joining technology.

3.45 pm Farewell address and end of the conference

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YOUR CONTACT

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**Registration and Terms & Conditions at
WWW.AUTOMOTIVE-CIRCLE.COM**



THERMAL AND MECHANICAL JOINING

MODERATORS:

*Professor Dr. Stefan Böhm, University of Kassel, Institute for Production Technology and Logistics, DE
Dr. Dirk Meine, Automotive Circle, DE*