

# Adhesive Experts Sharing Knowledge

Two-component adhesives create reliable and cost-efficient bonds. In-depth understanding in various areas is needed to use these adhesives correctly. Sulzer invited about 100 experts from the adhesive industry to Zurich, Switzerland, to the second Mixpac™ TecDays. There, they exchanged knowledge about the adhesive bonding process.

Process reliability of the adhesive bonding process



1 Steps in the process reliability cycle.

The Mixpac TecDays focus on knowledge exchange between industries on the subject of adhesive bonding. Manufacturers of adhesive products, producers of packaging solutions, and experts from universities shared information. This year, the Mixpac TecDays featured case studies on adhesive bonding from around the world — and even from space.

## Share-and-learn networking event

During the conference, theory was underlined with case studies from different industries. Over the course of a day and a half, the participants gained insights into the important process steps and their influence on bonding process reliability (Fig. 1).

## Knowledge transfer

Dr. Hartwig Lohse, a member of the DIN norm committee, introduced the topic “reliable adhesive bonding process.” He presented an overview of the new DIN 2304-1 standards and illustrated how it can increase the quality of bonded joints.

Sulzer Mixpac professionals demonstrated their expertise in the development, production, and processing of adhesive products. Development Engineer Joachim Schöck explained the complex mixing process to the audience.

For optimal process stability, the mixing characteristics of the devices have to fit the material to be mixed. An early cooperation with Sulzer during the development phase of the adhesive material leads to best bonding results.

## Case studies from the industry

Hayden Turner, an Application Engineer, provided Sulzer’s tips, tricks, and guidelines on how to select a dispensing tool, cartridge material, or piston type for special application needs.

Victor Clemens, Head of Technical Services, highlighted the influences on the mixing quality when using different cartridge-based adhesive systems. Through case studies and solutions from the industry, he exemplified the conditions necessary to achieve a reliable and sustainable adhesive bonding process.

German material manufacturers like the adhesives, beauty-, and home care giant Henkel, the industrial adhesives company DELO, and the material filler firm Ge-Halin presented current topics. Professor Dr. Pierre Jousset, from the Technical University Rapperswil, Switzerland, shared knowledge about sample preparation for the mechanical testing of adhesives.

### Adhesives in space and aircraft

Frank Salzgeber, Head of the Technology Transfer Programme at the European Space Agency, spoke about requirements for adhesive bonding technologies used in space. He broadened the discussion and covered philosophical aspects, such as: “What is space today? Why will space infrastructure be our future backbone? How can we deal with all the zetta-bytes ( $10^{21}$  bytes) of information collected during space technology developments? How can smart data help to develop the map of the future?” Nicole Guggenmos, Product Manager at DELO, reported on adhesive products and applications for aircraft interiors.

### New ideas from other industries

The conference took place at the Empa Academy in Zurich, Switzerland, at the end of September 2016. Besides performing material testing, the Empa also runs a project called “move”, which is about the mobility of the future and a smart building construction project called NEST. A guided tour introduced some of these and other forward-looking projects — a source of inspiration for the participants of the TecDays (Fig. 3).

Dr. Florian Garnich, working for Henkel, Germany, states, “In the name of all participants I would like to say, that it was a great event. We learned a lot about the key features of cartridges, mixers and dispensers and what role they play in ensuring a reliable adhesive bonding process. This event was an ideal platform to exchange knowledge at inspiring locations with a comfortable atmosphere.”

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2 Interested audience at the Mixpac™ TecDays.



3 Participants at the guided tour presenting the “move” mobility project of Empa.



4 The participants were eager to share and learn.



5 Networking is key for a sustainable business partnership.