

CASE STUDY

SENSOR STRIP

BONDING

WHEN ADHESIVE CAN DO MORE THAN JUST STICK

A sensor strip that opens the boot with a foot movement should be glued instead of clipped in future. However, the material released solvents, one substrate had to be primed, the other did not.

INNO TAPE combined two adhesive tapes with different properties and also took care of the entire application process – from priming to repackaging. The result: ready-to-install, tested parts and stable processes in just nine months.

Find out in our case study how individual material combinations solve complex requirements.

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INITIAL SITUATION

In modern vehicles, the boot opens with a foot movement under the bumper – this is made possible by an integrated sensor strip. In this case, it was originally clipped on, but should be glued in future.

Technical challenges

It became clear during the initial discussions that standard adhesive tape would not be suitable for this application.

Over time, the PVC backing material of the sensor strip releases solvents that can attack the adhesive. Therefore, one side of the strip had to be primed to create a barrier – the other side, however, could not be pre-treated because the production process did not allow for additional steps.

In addition, there was an adhesive gap of more than two millimetres, which was too large for standard adhesive tapes. Furthermore, the customer had no previous experience with adhesive tape solutions and therefore required comprehensive support in development and processing.

Objective

The aim was to replace the previously clipped sensor strip with an adhesive-based fastening to allow greater design freedom, reduce component weight and, at the same time, ensure reliable, reproducible assembly.

OUR SOLUTION

Together with the customer, we developed a two-stage concept:

1. Combination of materials

- A specially adapted combination of two adhesive tapes has been developed:
- A base product for the primed side.
- A product with excellent adhesion to low-energy plastics for the second side without additional pre-treatment.

This made it possible to bridge the gap safely and ensure adhesion to both materials – without any changes to the customer's process.

2. Application service:

At the customer's request, we also took care of the entire tape application process:

- Removing the pre-assembled sensor strips from their original packaging
- Cleaning and priming the surface
- Applying the adhesive tape
- Repackaging the parts

This provided the customer with a ready-to-install product that could be integrated directly into the assembly process – without any additional effort at the factory.

THE RESULT

After around nine months of development, the solution was ready for series production: a stable, reliable and economical adhesive that meets the highest requirements in terms of adhesion, material compatibility and processing.

WHY INNO TAPE

With almost 20 years of experience as an adhesive tape converter for the automotive industry, we develop solutions that work – technically, economically and in terms of process. We take bonding one step further: from material combination to application in the vehicle.

AND WHAT CAN WE DO FOR YOU?

No matter how far along you are in your project, feel free to contact us – we will support you and take the work off your hands: as a partner, manufacturer-independent, flexible and fast.

Your contact

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At a glance

- Individual material combination
- No process changes required on the customer's side
- Secure bridging of > 2 mm adhesive gap
- Complete application by INNO TAPE
- Ready-to-install component in series quality