



CASE STUDY

DISPLAY

BONDING

PRECISION THAT REMAINS INVISIBLE

High temperatures, vibrations and tight tolerances: the display bonding process placed the highest demands on materials and workmanship. The first choice of material failed due to vibration damping – the second due to price.

INNO TAPE accompanied the development from the outset, optimised the material, liner and grip

tabs, and developed a tailor-made application concept. The result: stable processes, reduced variety and lower costs.

Find out in our case study how material testing and presentation ensure series production capability.

DISPLAY BONDING

PRECISION THAT REMAINS INVISIBLE

INITIAL SITUATION

Today's modern vehicle displays must do much more than just look good – they are central control elements and information surfaces and must therefore function reliably under all conditions.

Specifically, this means:

High temperatures, vibrations, dust, moisture or light reflections – all these factors have a direct impact on the bonding technique used and make the connection between the display and the component a complex challenge.

Challenges in the project

- Different substrates and tolerances
- Precise adherence to the gap dimension
- Tightness against dust, dirt, liquids and creams
- Vibration and impact resistance
- Self-extinguishing, non-dripping materials
- Temperature resistance from -40 to +80 °C

Objective

The aim was to develop a display adhesive that would meet these diverse requirements – technically robust, visually precise and reliable in terms of assembly.

OUR SOLUTION

An application concept was developed in collaboration with the development team based on the drawing provided by the customer. The focus was not only on the adhesive tape itself, but also on the entire assembly process.

Several test runs were carried out with materials from different manufacturers. The material initially used did not fully meet the requirements for vibration damping. Therefore, a switch was made to another material with an even better price-performance ratio.



Originally, four grip tabs were planned, but by optimising the assembly process, two were ultimately sufficient. This not only reduced costs but also simplified handling. An additional liner reinforcement with recesses also ensures precise positioning in the assembly fixture.

THE RESULT

After 1.5 years of development, the final version was ready – tailored to all relevant process parameters. As we were involved from the early stages of development, we were able to find the best combination of materials and design.



Benefits for the customer

- Optimised handling thanks to reduced handling tabs
- Better positioning accuracy thanks to liner reinforcement and recesses
- Higher vibration and temperature stability
- Cost advantage thanks to manufacturer-independent advice
- Stable, clean assembly process



WHY INNO TAPE

With almost 20 years of experience in adhesive tape converting for the automotive industry, we combine technical expertise with process understanding. We think beyond adhesive tape – we think about optimal assembly. From prototypes to series production, we develop solutions that work: technically, economically and reliably.

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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