

Automotive

Adhesives for Head-Up Displays

Specialized solutions for reliable bonding of components in HUD assembly.

Manufacturing head-up displays (HUD), particularly picture generation units (PGU) and panoramic head-up displays (P-HUD), requires **precise bonding of all components and optical elements** to various substrates with differing thermal expansion properties. For **100% process control**, systems must detect adhesives without compromising optical properties, while components must withstand the harshest conditions—from thermal shocks to vibration loads.

DELO's adhesive solutions have been specifically developed to meet these challenges and offer **maximum effectiveness** through **fast curing or fixation** and **flexibility** through dual curing. Material compatibility and proven resistance to aging ensure **reliable and cost-effective assembly** in high-volume production.

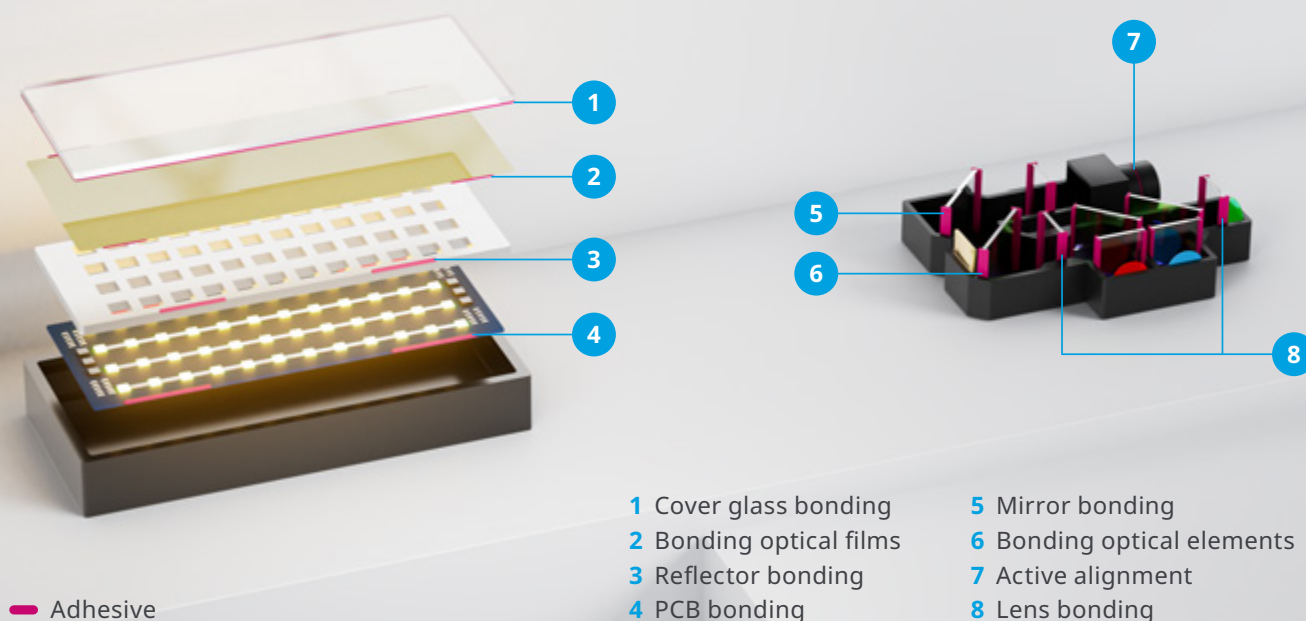


About DELO

DELO is a leading manufacturer of high-tech adhesives and other multifunctional materials as well as the corresponding dispensing and curing equipment. The company has a long-proven track record in developing innovative functional materials for structural bonding of head-up displays, assembly of optical components and optical materials.

The continued refinement of our adhesive portfolio plus our network of production line manufacturers, tier 1 suppliers and research institutions, facilitate creative new designs for next-generation automotive displays.

Bonding areas in panoramic HUD (P-HUD) and picture generation unit (PGU)



Adhesive properties

- › Excellent adhesion to various materials (e. g. plastics, glass and metal)
- › High strength over a wide temperature range
- › Temperature resistance
- › Resistance to shock, vibration and impact load
- › Flexibility at low temperatures
- › Low CTE and low shrinkage for active alignment
- › Low outgassing



Any questions?

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Process advantages

- › Easy processing, dispensing and process control
- › Fast and very precise fixation by light curing
- › Curing on demand, active alignment
- › Reliable curing also in shadowed areas by dual curing

Your benefits

- › Energy- and cost-saving method through light curing
- › Fast and effective processing
- › Automated visual inspection
- › Reliable curing in shadowed areas
- › Reduced processing times
- › No optics fogging or contamination

DELO Industrial Adhesives

China | Czechia | France | Germany HQ | Italy | Japan
Korea | Malaysia | Singapore | Thailand | USA

The data and information provided are based on tests performed under laboratory conditions. Reliable information about the behavior of the product under practical conditions and its suitability for a specific purpose cannot be concluded from this. It is the customer's responsibility to test the suitability of a product for the intended purpose by considering all specific requirements and by applying standards the customer deems suitable (e. g. DIN 2304-1).

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