

Augmented Reality

# Adhesives That Do More

Proven in smartphones.  
Ready for AR at scale.

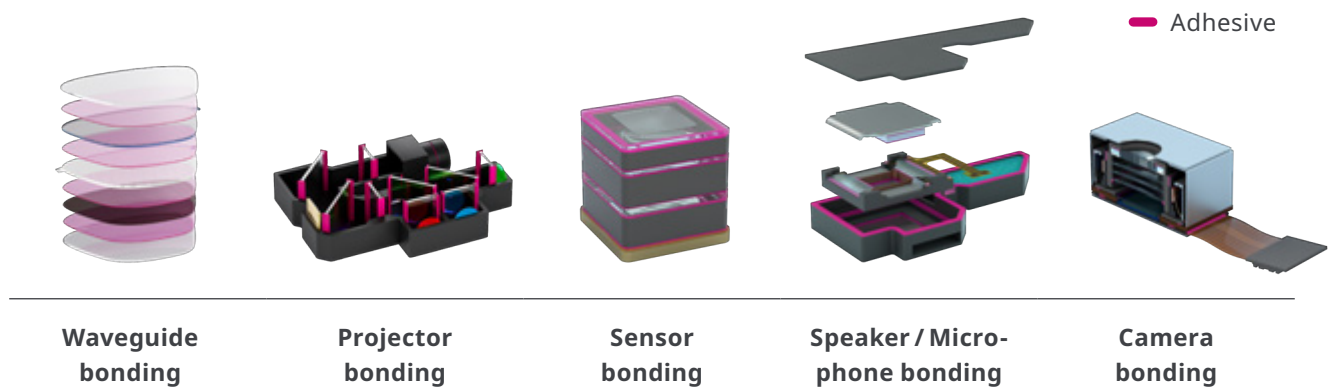


AR glasses are among the most demanding devices ever manufactured. Every bonding application must meet tight optical, mechanical, and thermal requirements—often simultaneously. Components must be aligned with **micrometer precision**, edges blackened to suppress stray light, and speakers bonded to deliver clear, reliable sound. Beyond pure bonding, adhesives in AR devices often serve **additional functions: conducting heat,**

**damping vibrations, or defining optical properties with precision.** DELO brings proven expertise from consumer electronics to AR manufacturing: the materials trusted in hundreds of millions of smartphones, now engineered for the complexity of next-generation AR devices. Our solutions are ready for **high-volume production** from day one—reliable under humidity, temperature, and UV exposure.

## Key bonding areas

- › **Camera:** Precision alignment of lenses
- › **Waveguide optical bonding:** precisely defined refractive index (1.49 – 1.72), high transparency, and low haze
- › **Waveguide edge blackening:** High optical density for efficient stray light suppression—even at layer thicknesses of 40 µm
- › **Optical engine:** Precision alignment of optics with µm accuracy
- › **Sensors:** Miniaturization enabled by wafer-level optics and black epoxy coatings for improved signal-to-noise ratio
- › **Speaker / Microphone:** Enhanced acoustics through damping adhesives



## Scalable processes for high-volume production

- › Co-design of adhesives, dispensing, and curing processes
- › Fast, 100 % UV-curing for automated high-throughput production (depending on product line)
- › Complete system solution: Matching DELO dispensing and curing equipment available
- › Proven in consumer electronics mass production—transferable to AR at scale



Explore our full AR materials portfolio!  
[go.delo.de/ar-overview-flyer](https://go.delo.de/ar-overview-flyer)

## 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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