DELO
Leading by intelligent bonding technology

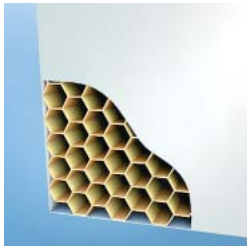
Adhesives for aircraft interiors

Light-weight construction is one of the most essential aspects in the aircraft industry. Therefore, bonding is the joining method of choice in this field. By using adhesives to join the light-weight composite materials used, weight and (fuel) expenses can be cut down.
Passenger safety also plays an important role. As a consequence, the materials used are specifically tested for their behavior and pollutant emission in the event of fire (fire smoke toxicity test).

DELO supplies adhesives specifically developed for aircraft carriers and many DELO products used in the fields of electronics, display and fastening technology are also suitable for applications in aircrafts.

Adhesive properties

- High temperature stability
- The adhesives are specially adapted to the materials to be joined
- Particularly high strength on plastics such as PPSU
- Qualified and released by Airbus according to AIMS 10-04-001 (depending on product)



Bonding of cabin interiors

The adhesives face a wide variety of challenges in this field as they bond side walls, luggage racks, light covers as well as special Dado panels.

Doors and door frame covers

DELO adhesives are already used in this area to bond sandwich structures to thin plastic panels. As adhesive joining does not damage the material, the load-bearing stiffness of the sandwich structures remains unreduced. The adhesives have tough-elastic properties and also equalize tensions well.

Assembly of fasteners

Countless assembly elements, such as inserts or ONSERTs®, can be found in the aircraft interior. These special fasteners are used for example in air distribution systems and all types of pipes and cable lines.

ONSERT® method
ONSERT® is a joining method that was designed to unify the techniques of bonding and screwing. Fasteners, such as thread inserts or clips, are attached by special light-curing adhesives. The advantages: Removable connections can be used without material-damaging boreholes.

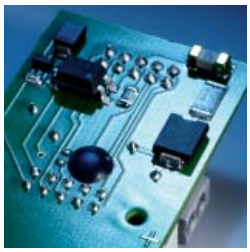
Seats

DELO adhesives provide excellent strength and high peel resistance. Therefore, they are used in constructive seat bondings and for veneers. Unlike other joining methods, bonding gives creative freedom for design and appearance.

Displays

Today, no aircraft can be imagined without displays. They are used in in-flight entertainment and the cockpit.

Previously, the air gap between touch panel and display led to undesirable reflections. Thanks to the new optically clear DELO adhesives, these reflections can be reduced to a minimum (see picture).



Electronics

Similar to components in the automotive industry, electronic elements in aircrafts are often subject to extreme conditions and must be usable in a wide temperature range.

In addition, they must be resistant to extreme forces and vibrations and withstand aggressive media. DELO has developed chip encapsulants especially for this purpose.

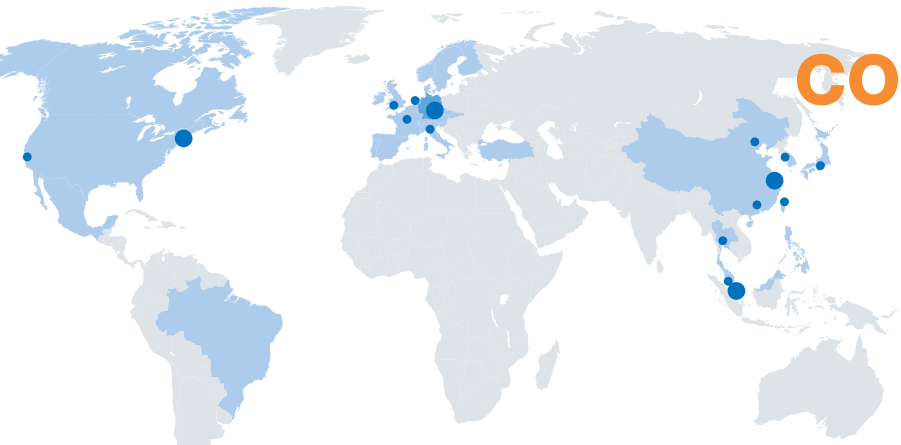
Optoelectronics

Light systems are essential in aircrafts. DELO supplies a range of adhesives for a wide variety of optoelectronic applications.

Bonding as a joining method supports the trend towards miniaturization and makes many applications more cost-efficient. DELO adhesives are suitable for use in cabin lighting, illuminated signs, reflective stripes or emergency lighting.

Bonding of sensors

Sensors required in the aircraft industry place special demands on the adhesives used.
They must protect the sensor from external influences such as pressure or aggressive media.
Open contact areas at the housing must be reliably covered and protected from corrosion.



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