

Adhesive Bonding



INNOVENT

Technology Development

Research Department:
Primer and Chemical
Surface Treatment

- building & construction industry
- lightweight design
- optics & sensors
- micro technology
- medical engineering
- optimized for (individual) application
- cost-effective
- energy-efficient
- eco-conscious
- metals
- synthetics
- ceramics
- glass
- natural materials

Adhesive bonding is an efficient joining technology opening various new fields of application ranging from micro to macro, from living tissue up to extreme temperature condition.

By varying the properties of the substrate materials, the adhesive composite system and the production process, adhesives can be adjusted to the desired individual application. The adherends pretreatment as well as the technical production conditions and the process control are essential.

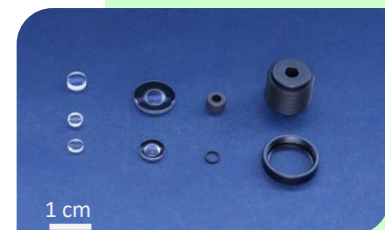
However, finding the most suitable adhesive from the variety of commercially available adhesives is extremely difficult. It is often necessary to develop a individual formulation to fulfill the special request profiles.

In addition to the expansion of adhesive properties, we further work on:

- variation of curing possibilities
- R&D of special adhesives for distance regulation and permanent or temporary fixation of components
- development and modification of latently reactive hotmelts
- non-destructive de-bonding (rework & repair of faulty composites)



universal testing machine



load-stable adhesion of optical lenses in aluminum spacer

Our range of services:

- development and optimization of adhesives technology (also for "difficult to bond" materials)
- Testing and characterization of adhesives and adhesive bonds
- adjustment and customization of adhesives
- development of debonding methods
- feasibility studies
- scientific advice on the selection of adhesives and pretreatments



selection of test specimens for adhesive characterization

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