# Light-curing Adhesives for LED Modules

### **DELO's adhesives fulfill tough industry outgassing requirements for LED applications**

DELO's adhesives have proven through industry-accepted tests to be chemically compatible for bonding applications in LED light engines and LED modules. Ten products are released for the use in direct contact to the LED surface, another four are released for indirect contact.

The test was performed as shown below, with LEDs running at 700 mA for six weeks, where temperatures of > +70 °C were reached on the boards. Light output measurements show a stable intensity of the LED module throughout the test period.

### LED compatibility test





Video: LED Bright Test

# Your benefits

- Continuously high intensity of the LED modules over lifetime, and therefore maximum optical quality
- Light curing enables automated and cost-efficient production
- Freedom of design thanks to invisible joins, even for extravagant shapes and materials



Even after long-term tests, the modules bonded with DELO-PHOTOBOND retain their brightness.



Precise, fast and automated application of lenses using UV adhesives

#### Superior universal strength after aging Compr. shear strength [%] Glass/VA PC/AI PMMA/PMMA 150 100 50 0 Initial value 7 days/+80°C 2 weeks climatic test

# **Properties of DELO-PHOTOBOND** products

- LED-compatible
- н. Low outgassing
- н. Yellowing-resistant
- Temperature-, humidity- and vibration-resistant н.
- . Universal adhesion
- Fast light curing within seconds н.
- Various viscosities available

#### Talk to our experts!



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 user's responsibility to test the suitability of the product for the intended purpose by considering all specific requirements. Type, physical and chemical properties of the materials to be processed with the product, as well as all actual influences occurring during transport, storage, processing and use, may cause deviations in the behavior of the product compared to its behavior under laboratory conditions. All data provided are typical average values or uniquely determined parameters measured under laboratory conditions. The data and information provided are therefore no guarantee for specific product properties or the suitability of the non-existence of any relevant patents or to constitute a permission, encouragement or recommendation to practice any development covered by any patents, without permission of the owner of this patent. All products provided by DELO are subject to DELO's General Terms of Business. Verbal ancillary agreements are deemed not to exist. © DELO – This brochure including any and all parts is protected by copyright. Any use not expressly permitted by the Urheberrechtsgesetz (German Copyright Act) shall require DELO's written consent. This shall apply without limitation to reproductions, duplications, disseminations, adaptations, translations and microfilms as well as to the recording, processing, duplication and/or dissemination by electronic means.