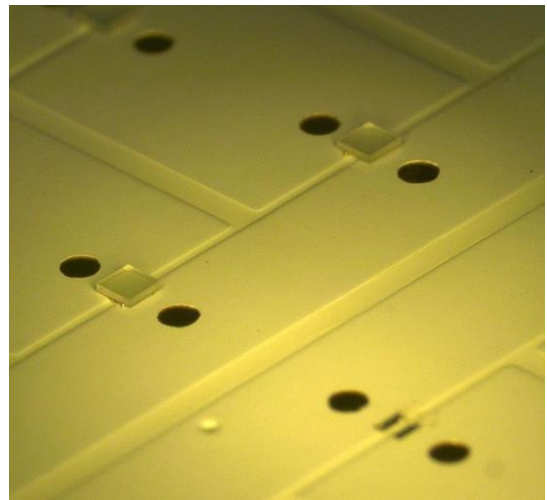


Rework of LED dies using debonding solution from Tresky Automation

In times of limited availability of components and materials, reworking takes on a very special significance. This also applies to LED manufacturing, where irregularities in processed LEDs are immediately visible at first sight.

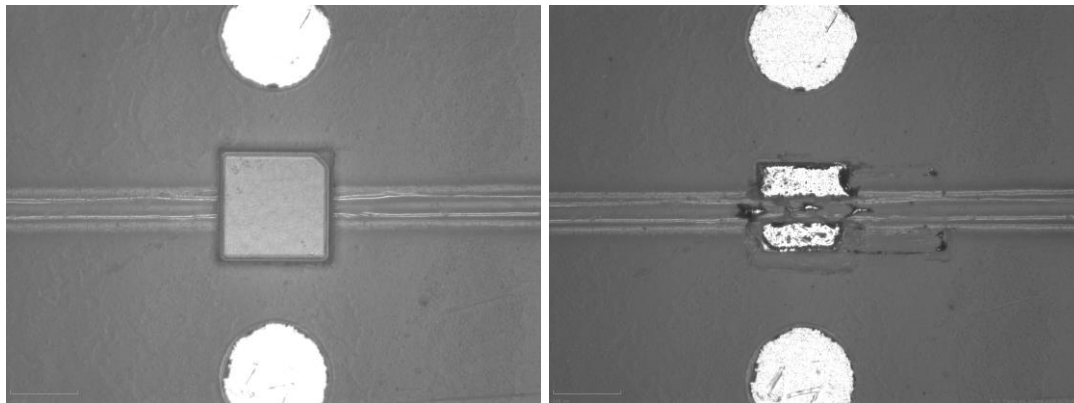
Reworking faulty or incorrectly placed components is one of the more demanding tasks in electronics production. If the components are particularly small or fragile, this work is even more complex. If LEDs are used, a perfect light pattern is usually a prerequisite. For reasons of extremely important quality assurance, it may be necessary to rework LED dies. "Defective LED dies are a real challenge. These sensitive, easily fragile and very small components are usually processed in tight packing densities and can only be removed and reworked with a lot of knowledge, experience, a lot of tact and the right tools. With the right technology, however, this is possible," explains Daniel Schultze, Managing Director of Tresky Automation.



LED chip on substrate

For this purpose, Schultze and his team adapted a process known from component manufacturing at the request of a customer. "Our die bonding automation system allows LED dies to be easily and successfully removed in the rework configuration without damaging adjacent LED dies or affecting the solder and its surroundings," Schultze continues. For this purpose, the debonding process is carried out with the help of a modified scrubbing function, whereby the adhesion between the LED die and the solder is broken with the help of the heating temperature. "Once the LED die is separated from the solder, it is carefully picked up by a pick-up tool," explains Schultze. A new die can then be inserted in the same Tresky Automation machine. Since the die bonding systems are designed for high-precision processes, the entire reworking process of the LED dies is carried out according to the specifications of the semiconductor production and is therefore not only exact, but also controlled and reproducible.

Press release



Before debonding

After debonding

About Tresky

Since 1980 the name TRESKY stands for the highest quality, unmatched flexibility with maximum reliability. Tresky GmbH is one of the world's leading machine manufacturers for placement systems in the high-precision sector offering more than 40 years of experience in the semiconductor industry. The company is headquartered in Hennigsdorf near Berlin, in the middle of a technology park that is home to numerous highly specialized companies from the automation, electrical engineering, communications technology and life science sectors. Quality "Made in Germany" - Tresky develops, produces and sells Die Bonders from its headquarters in Hennigsdorf. More information: <https://www.tresky.de/en/>

Deeplinks:

<https://www.tresky.de/en/#1658228348705-6316871d-75ae>

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