

Bonding & Sealing Solutions for Medical Containers

Opportunity

A medical device manufacturer in the US assembles containers for the medical industry. They were having difficulty bonding and sealing clear, polished polycarbonate components. An adhesive is needed that provides a seamless bond line, seals the parts, and is aesthetically appealing.

Substrates: PC (Polycarbonate) || PC (Polycarbonate)

Challenges

- Blooming of the competitive adhesive creates additional cleaning requirements
- Insufficient gap fill of the competitive adhesive leads to poor sealing performance which results in scrap
- Extended cure times due to larger gaps slows production output

Solutions

Product(s) used: [Loctite 3211 Med](#)

Components

Bond lines are cleaned with isopropanol to prepare the surfaces for bonding.

Dispense and Cure

Adhesive is dispensed by hand and parts are assembled. The adhesive bond line is cured with the Loctite CureJet LED Light Source.

Outcome

The medical containers are now more easily manufactured with a complete seal and reduced post assembly clean-up.



Benefits

- [Loctite 3211](#) eliminates blooming, improves cosmetic appearance, and reduces cleaning
- Higher adhesive viscosity and light cure acrylic chemistry allow for filling larger gaps which provides a reliable seal and reduction of scrap
- Immediate cure initiated by LED light source maximizes production potential at a lower cost