

Bonding & Sealing Solutions for Medical Tubing Sets

Opportunity

A medical device manufacturer in Malaysia designing a new catheter product is looking for an adhesive to bond flexible tubing to rigid components. The adhesive must be easily dispensed and cured, as well as bond and seal plasticized PVC.

Substrates: PVC (Polyvinylchloride) || PVC (Polyvinylchloride)

Challenges

- Superior bond strength and leak resistance on PVC components
- Recommended process must optimize the production line output
- Speed of adhesive cure is critical to maintaining low overall manufacturing costs

Solutions

Product(s) used: Loctite 3311

Components

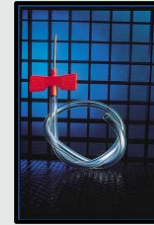
No cleaning or priming of the part is required prior to assembly

Dispense and Cure

A small drop of adhesive is applied to the hub with a Loctite Digital Syringe dispenser. Tubing is inserted into the hub and then cured with the Loctite UV Wand System.

Post-Assembly

After the components are assembled, heat is applied to the tubing to bend it into the prescribed shape. The wing assembly and cuff pilot are then attached to complete the catheter set.



Benefits

- Loctite 3311 exceeded the strength and cycle time requirements
- Loctite 3311 meets the flexibility requirements for the plasticized PVC
- Loctite 3311 meets ISO 10993 standards