

Bonding Solutions for Needle Assemblies

Opportunity

A needle manufacturer in India working on a new dispense needle design required process assistance in bonding the cannula to the hub. An adhesive, as well as dispensing and curing equipment, was required to meet production and performance requirements.

Substrates: PC (Polycarbonate) || Stainless Steel

Challenges

- Product and equipment recommendations must meet all production goal requirements
- Design engineers had limited experience in developing and qualifying this manufacturing process
- Adhesive must meet ISO 10933 biocompatibility standards

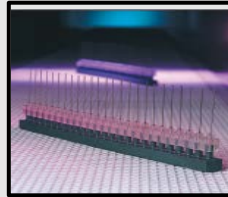
Solutions

Product(s) used: Loctite 3301 Med



Components

No cleaning or priming is required on the stainless steel cannula or the polycarbonate needle hub.



Dispense and Cure

The cannula is inserted into the hub and a very small drop of adhesive is dispensed into the hub well. The assembly is exposed to UV light for several seconds to completely cure the Loctite 3301.



Testing

The needle is tested for blockage and strength prior to packaging. Henkel adhesives

Benefits

- Loctite 3301 meets ISO 10993 standards
- UV / Visible Light Curing product cures in seconds insuring production output demands are met
- Loctite 3301 meets tensile strength requirements and provides reliable and repeatable results