



Case Study #2

A global computer hardware manufacturer.

The Company:

A global computer hardware manufacturer

The Application Challenge: *Sealing TAB packaged semiconductors. The company came to us looking for a solution to speed up their production line. Their process was being slowed dramatically due to the long curing cycle required for their existing material.*

Epoxy Technology was able to examine their process and their material requirements and proposed a new material and curing solution that would reduce cycle times by over 80%.

Material Challenges:

1. Fast cure < 30 seconds
2. Equal or better strength than their current material
3. Excellent adhesion to Kapton
4. Hermeticity
5. Solvent resistance

Automation Challenges: Epoxy Technology proposed a UV cured material as a solution. It needed to be dispensable on the customers' current equipment and thixotropic so that it would not flow into hidden areas on the component that could not be reached by the UV light.

The Solution:

Materials:

EPO-TEK #OG116 was initially evaluated for the application. Its novolak chemistry has excellent chemical resistance and very good adhesion. OG116 performed better than 39 other materials submitted for chemical resistance testing.

Although the customer was extremely happy with product performance characteristics of the material, they wanted to fine tune the rheology for maximum throughput in their production process.

Epoxy Technology scientists worked with the Company's engineers to modify the product for maximum product speeds. Specifically, they needed faster dispensing and less residue on the syringe tip. The viscosity was dropped slightly to allow the product to dispense more easily. The thixotropic index of the material was also decreased in order to stop the material from sticking to the syringe tip.

Need a solution?

Call Technical Services at 1-978-667-3805

Or

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