

Polymers Hard at Work in Your Cell Phone

Presented by Jeff Gotro, Ph.D.



Abstract

You might not think that chemistry and polymer processing is a key part of the manufacturing of electronic devices, but without sophisticated polymers and advanced processing techniques, today's electronic devices would not be possible. There are a wide variety of polymers used in the typical cell phone. These include epoxy resins for printed circuit boards, adhesives to attach semiconductor chips to substrates, and polymer coatings to protect devices from moisture and dirt. The presentation will provide an overview of the types of polymers and processing techniques used in cell phone applications. Some of the chemistries used in new applications include epoxies, acrylics, bismaleimides, and polyimides. The drive to environmentally friendly devices has required the elimination of halogen containing polymers and driven the implementation of lead-free solders. Processing methods such as adhesive and underfill dispensing as well as lamination for multilayer circuit boards will be covered. The process implications of lead-free solder will also be covered. Emphasis will be placed on the structure-property-processing relationships required to make mobile devices highly reliable.

Contact Jeff to discuss how he can help increase the impact of your next event by developing a tailored presentation to captivate your audience.

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