TJ GREEN ASSOCIATES, LLC

739 Redfern Lane
Bethlehem, PA 18017 USA
www.tjgreenllc.com

Direct: 610-625-2158
Mobile: 610-730-3224
Email: tgreen@tjgreenllc.com

Webinar Course Description

"Near-Hermetic" Packaging Concepts for Military and Medical Devices (2 Sessions)

Packages made from polymeric materials as opposed to traditional hermetic seals (i.e. metal, ceramic etc) require a different approach from a hermeticity testing standpoint. The problem is now one of moisture diffusion through the barrier and package interfaces, which is different that water vapor permeating a crack in a glass to metal interface. A brief review of the techniques and methods to evaluate a "non-hermetic" approach is presented along with a discussion of the pitfalls and issues of TM 1014 and TM 1018 as applied to a "near hermetic package".

Session I: Near Hermetic Part 1

Cavity style packages made from polymeric materials such as LCP or Teflon or other types of packages that are coated with a polymer as opposed to traditional hermetic seals require a different approach from a leak testing standpoint. The problem is now one of moisture diffusion through the polymer or barrier.

- Military and Medical Market Drivers
- "Near Hermetic" cavity package defined
- The "Hermeticity Myth"
- MIL-STD-883 TM 1014 and TM 1018 Do they apply?

Session II: Near Hermetic Part 2

A brief review of the techniques and methods to evaluate a "non-hermetic" approach is presented along with the fundamental theory.

- Fick's Law of Moisture Diffusion
- WVTR, TGA and moisture diffusion coefficients
- Moisture Sensing (wired and wireless sensors)
- How to qualify a "near hermetic " package