

Humidity Indicator Cards requirement

Applicable documents:

IPC-1601: Printed Board Handling and Storage Guidelines

J-STD-033: Handling , Packing, Shipping and Use of Moisture/Reflow Sensitive SMD

The requirements are:

Upfront shipment: HIC shall not indicate 10%RH

Arrival customer warehouse: HIC shall still not indicate 10%RH

- Packing shall prevent moisture absorption under transportation

HIC and desiccant placement on PCB:

HIC can be placed anywhere on the PCB but shall not be placed under a desiccant pouch. HIC and Desiccant shall be placed in direct contact with the PCB, and not be outside or isolated from the PCB by packing material.

J-STD-033:

Function and test of the HIC

3.3.2.3 Humidity Indicator Card (HIC) At minimum, the HIC shall have at least three (3) color spots with sensitivity values of 10%, 30% and 60% RH. The spots shall indicate the humidity with a significant, perceptible change in color (hue). Hue shall be tested using the test method in J-STD-033C Appendix A using the values in this document. The colors shall be described in writing on the card. The 10% and 30% HIC spots shall be reversible to allow reuse. HIC reuse is not allowed if the 60% spot has changed color. Reuse is not allowed, due to loss of accuracy of the 10% and 30% spot chemistry, if the 60% spot has changed color. It is not required to reuse the same HIC from the MBB if the MBB is to be resealed; a fresh HIC may be used.

Sensitivity:

At a 30 °C/60% RH environment the 10% spot shall begin to change from dry indication in a maximum of 4 minutes and complete change (to wet indication) in 7 minutes and the 30% spot shall begin to change from dry indication in a maximum of 6 minutes and complete change (to wet indication) within 10 minutes when removed from manufacturer's original container.