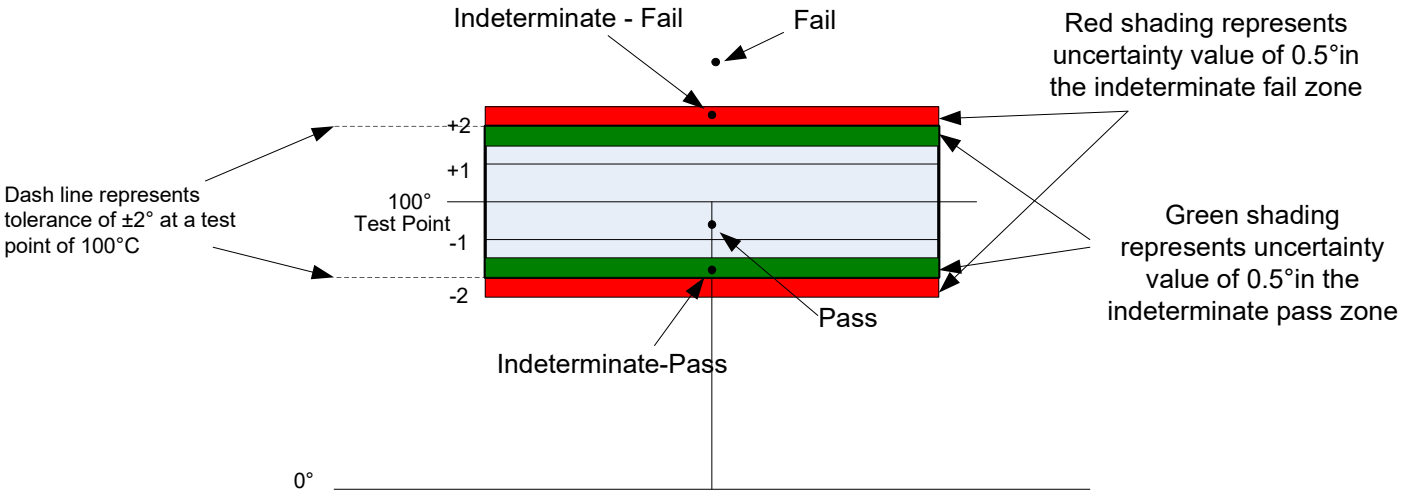
Explanation: Measurement uncertainty and how it affects pass/fail determination.



The diagram above depicts a reading of a test measurement done at 100° with a tolerance of ±2°. On the left I show where the reading would fall at 1° and 2°. Note the +/- 2° shows limits of accuracy acceptance.
In this example, uncertainty has been stated as 0.5°.
This results in a zone of 0.5° amplitude of uncertainty (the red and green areas). This can also be viewed as how much the reading can be moved from its position and, if the movement results in it landing in an area outside of acceptable limits, be declared out of tolerance(oot). Determination of readings defined as follows:

Fail – This initial reading falls outside of the ±2° zone and outside of the uncertainty zone. Clearly an OOT reading. Moving it 0.5° in either direction will NOT result in a Pass.
Indeterminate-Fail – This initial reading is outside of the ±2° zone but within the 0.5° uncertainty zone (red bar) and thus the reading, if moved 0.5° could result in a final reading of Pass in one direction or a final reading of Fail in the other. Thus, Indeterminate-Fail.
Pass – This initial reading falls within the ±2° zone. Moving it 0.5° in either direction will still result in a Pass (will not enter green uncertainty zone).
Indeterminate-Pass – This initial reading falls within the ±2° zone but lies in the green uncertainty zone. Moving it in one direction may result in a Fail, moving in the other will maintain the Pass, thus Indeterminate-Pass.

Diagram below shows the same concept without the zones. The + and – indicates how far the test point could move due to uncertainty. Any movement taking the test point in or out of acceptable limits results in an Indeterminate classification.