

DECISION RULES

APPLIED BY INTERTEK ITALIA SPA TO ASSESS THE COMPLIANCE (PASS/FAIL) WHEN THE ANALYTE CONCENTRATIONS FOUND ARE EQUAL TO THE LIMIT

According to standard ISO 17025 § 7.8.3 the uncertainty value is reported along test result when it is relevant to understand the validity or application of the results.

To align all cases and operate in accordance with ISO 17025, the laboratory adopted the following Decision Rules with PFA (Probability of False Acceptance) < 50%.

Upper limit: (see Fig. 1)

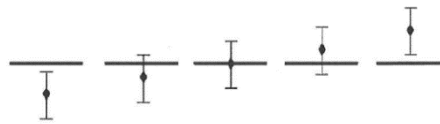


Figure 1

Respect to this limit the result should be below.

1. Test result below the limit, but adding the test uncertainty value, the result is still below the limit itself. Test result is always considered **PASS**.
2. Test result below the limit, even if adding the test uncertainty value, the result is above the limit itself. Test result is always considered **PASS**.
In this case uncertainty value is reported along test result.
3. Test result equal to the limit,
If the limit is minor or equal to, test result is always considered **PASS**.
If the limit is minor to only, test result is always considered **FAIL**.
In both cases uncertainty value is reported along test result.
4. Test result above the limit; even if subtracting the test uncertainty value, the result is below the limit itself. Test result is always considered **FAIL**.
In this case uncertainty value is reported along test result.
5. Test result above the limit, but subtracting the test uncertainty value, the result is still above the limit itself. Test result is always considered **FAIL**.



Lower limit: (see Fig.2)

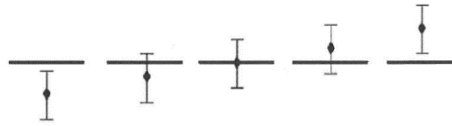


Figure 2

Respect to this limit the result should be above.

6. Test result below the limit, but adding the test uncertainty value, the result is still below the limit itself. Test result is always considered **FAIL**.
7. Test result below the limit, even if adding the test uncertainty value, the result is above the limit itself. Test result is always considered **FAIL**.
In this case uncertainty value is reported along test result.
8. Test result equal to the limit,
If the limit is upper or equal to, test result is always considered **PASS**.
If the limit is upper to only, test result is always considered **FAIL**.
In both cases uncertainty value is reported along test result.
9. Test result above the limit, even if subtracting the test uncertainty value, the result is below the limit itself. Test result is always considered **PASS**.
In this case uncertainty value is reported along test result.
10. Test result above the limit, but subtracting the test uncertainty value, the result is still above the limit itself. Test result is always considered **PASS**.