This decision rule is to be handed over to the customer as part of the order confirmation if a conformity assessment is requested and no different decision rule has been agreed.

IMA Materialforschung und Anwendungstechnik GmbH (Applus+ IMA Dresden) carries out technical and scientific testing services for you. As a test and calibration laboratory accredited according to DIN EN ISO / IEC 17025: 2018, we have extensive knowledge of measurement methods and their measurement uncertainties.

The measurement uncertainty to be taken into account consists of a large number of individual components. These depend, among others, on the test or calibration method and the test/calibration equipment used.

The measured value determined is influenced by a large number of steps and each process step contributes to uncertainty. From this, an overall measurement uncertainty contribution is calculated for each test and calibration method.

If you commission us with test or calibration services to determine a statement of conformity against a limit value or a specification value, the measurement uncertainty can be taken into account in different ways. This consideration is defined in the following decision rule.



U = 95% expanded measurement uncertainty

## Figure 1: Graphical representation, Binary Statement - Simple Acceptance [ILAC G8]

	Measurement uncertainty – Decision Rule			Applus <sup>⊕</sup>
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For cases A and D, the measured value including the measurement uncertainty completely exceeds or falls below the limit value. For cases B and C, the measured value is above or below the limit value, but there is a limit case including the measurement uncertainty.

For this reason, the following decision rule is defined, if you don't define another one:

The statement of conformity is based on the binary statement for simple acceptance rule (w=0)

according to ILAC G8. The measured values are considered without the measurement uncertainty.

With this decision rule, depending on the measurement uncertainty of the measured value, there is a risk of false-compliant or false-non-compliant statements (cases B and C).

In the test report respectively calibration certificate, the sentence is added: "The statement of conformity is based on the binary statement for simple acceptance rule (w=0) acc. to ILAC G8. The measured values are considered without the measurement uncertainty.".

If you commission us with test or calibration services without specifying limit values, no conformity assessment will be carried out.

If you would like to evaluate your results yourself, you can ask about our measurement uncertainties. We are happy to answer any questions you may have about this problem.