

Abstract:

Measurement uncertainty - possibilities with testXpert and news from standardization

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Within the framework of ISO/IEC 17025, the testing laboratories and calibration laboratories are required to make statements about measurement uncertainty. While the national accreditation bodies provide sufficient and practical specifications and instructions for calibration laboratories, the testing laboratories are more on their own because the test methods are much more numerous. The standardization has taken up the topic, but generally, no detailed specifications or suggestions for are supported for the determination of the uncertainties. In this context, more recent developments in international standardization are presented, the aim of which is to become more specific and more helpful for users. ZwickRoell is following this trend and has already developed a framework within the testXpert testing software within which users can implement their calculation models. For the metal tensile test, the determination of the measurement system-related measurement uncertainty for all relevant parameters is available as an option. However, this measurement uncertainty only includes the sensor system but can be used as a starting point for determining a result uncertainty. This relieves the user of complex mathematical considerations and implementation.

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