Bundesanstalt für Materialforschung und -prüfung

Reference procedure

White light interferometry microscopy (WLIM) for determination of topographic quantities of surfaces with adequate reflection

Proof of competence

ISO/IEC 17025 accreditation

Testing quantities and objects

Vertical and lateral topographic quantities such as roughness, waviness, and shape
Maximum object size: (150 × 150 x 100) mm^3

Testing range

Vertical measurement range: 6 nm to 145 µm

Lateral measurement range: 3 µm to 3 mm

Expanded measurement uncertainty (k = 2)

Vertical measurement range:

20 nm to	7 µm, U < 0.5 %
7 µm to	50 µm, U < 0.7 %
50 µm to	145 µm, U < 1 %

Field of application

Surface metrology: topometry of technical surfaces, measurement of step height and layer thickness

References

VDI/VDE 2655 - Blatt 1.1:2008-03, Optical measurement and microtopographies - Calibration of interference microscopes and depth measurement standards for roughness measurement, https://www.vdi.de/2655-1.1.
VDI/VDE 2655 Blatt 1.3:2020-02, Optical metrology of microtopographies - Calibration of interferometers and interference microscopes for form measurement, https://www.vdi.de/2655-1.3.

Contact person

Mr Matthias Weise
Matthias.Weise@bam.de
+49 30 8104-3516