

kaloMAX NT II

Ball cratering test device for the determination
of wear coefficients

- Reproducible measurement of wear and scratching resistance
- Measurement of layer thickness
- Comfortable operation
- For quality assurance and coating development
- Suitable for hard coatings, lacquers, plastic coatings



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Quality assurance of coatings needs expressive test procedures, which allow quick and reliable valuation of the coating quality. kaloMAX NT II has been developed in co-operation with the Fraunhofer Institut for Surface Engineering and Thin Films (IST) especially for the characterization of hard coatings. The method is usable for thin coatings (1 μm) as well as for other materials or lacquers. The procedure supplies a material characteristic which enables a function-oriented evaluation of the coating quality.

Methodology of abrasion testing by wear craters:

- Grinding-in the wear crater into the coating
- Determination of the diameter by microscope
- Calculation of the wear coefficient from normal force, sliding distance and volume of the wear crater

Advantages:

- Test takes only a few minutes
- Test parameters optimized for measuring hard coatings are available
- High reproducibility and accuracy by means of a special abrasive slurry
- High accuracy in grinding of the wear crater
- Usable for plane and curved parts
- Exact determination of coating thickness without calibration even for multilayered coatings
- Easy positioning by cross table

Technical Data:

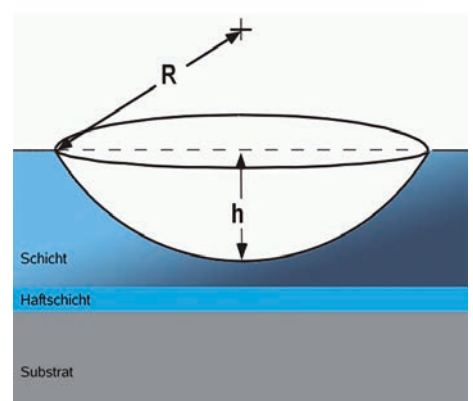
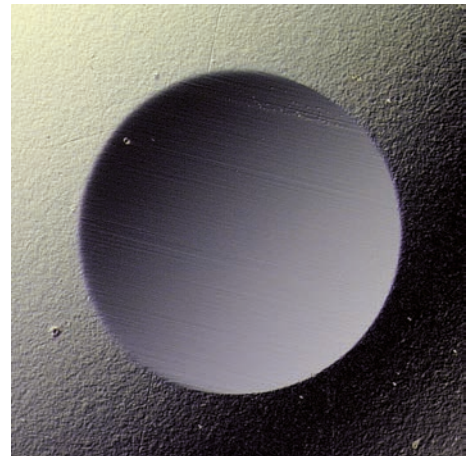
Ball diameter	min. \varnothing 15 mm, max. \varnothing 30 mm
Speed range	20 – 500 1/min
Programmable	Grinding path, grinding period, number of revolutions, dosage time etc.
Clamping range for plane parts	50 mm
Clamping range for round parts	\varnothing 3 – 30 mm (clamping jaws for other dimensions available upon request)
Cross table travel	25 x 25 mm
Dimensions	305/295/295 (h/w/d)
Weight	approx. 8 kg
Compressed air supply	max. 6 bar

Scope of delivery:

kaloMAX NT II with cross table and pneumatic dosing device for the abrasive slurry

Options:

- Abrasive slurry with reference sample
- Calibration certificate by IST
- Laser pointer
- Gauge for adjusting the normal force on the sample
- Microscopes (optionally with video camera to measure the diameter of the wear crater)
- Software for easy calculation of the wear coefficient



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