DROP SHAPE **ANALYSIS**

KRÜSS DSA30

Wettability studies involve measurement of contact angles as the primary data, which indicates the degree of wetting when a solid and liquid interact. Small contact angles (<90°) correspond to high wettability, large contact angles (90°) correspond to low wettability. Drop shape analysis system DSA 30 allows complex characterization of surface pre-treatment processes, investigation of the adhesion and stability of bonding and coating processes, checking the wettability of plastic, glass, ceramic, wood, composite or metal based materials as well as checking surface cleanliness.

ACQUIRED INFORMATION

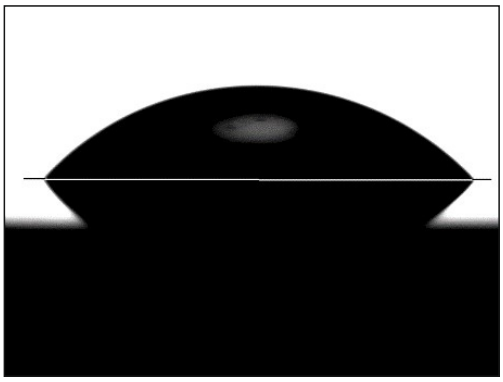
- Static and dynamic contact angle of wetting
- Surface free energy

SAMPLE TYPES

- Solid foils, plates, cylinders or powders and fibres
- Materials types such as composites, metals, plastics, resins, ceramics, food and biological samples

MODES, CONDITIONS AND PRECISION

- Contact angle between a liquid and a solid
- Surface free energy from contact angles of several test liquids using all common models
- Static contact angle, advancing angle and receding angle
- Measurement of surface tension and liquid-liquid interfacial tensionusing the Pendant Drop method
- Measurements on inclined surfaces
- Temperature-controlled measurements from 20 to 40°C
- Contact angle range from 1 to 180°, resolution 0.1°
- Surface tension range from 0.01 to 1000 mN/m, resolution 0.01 mN/m
- Optics with manual and software controlled zoom
- One to three axes manually or software controlled
- Manual or motor driven one to four-fold dosing system
- Standard camera (60 fps), 6.5× zoom
- Statistical tools included
- Maximum sample size 300 × ∞ × 50 mm (W × D × H)



A typical sessile drop pattern.

DETAILED INFORMATION ON REQUEST

REGIONAL CENTRE
OF ADVANCED TECHNOLOGIES
AND MATERIALS

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