



Bubble Pressure Tensiometer BP50


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Checking the concentration of cleaning agents on site or determining the right time for additional dosage of surfactants in the electroplating bath: this is the domain of the BP50. Mobile and independent of the mains, easy to use, and still a powerful measuring instrument for dynamic surface tension.

- **Wide dynamic range: Measurements at surface ages from 15 to 16000 ms**
- **Robust disposable capillaries for instant use**
- **Built-in temperature sensor**
- **Software for measurement definition and control with comfortable database together with plot and report functions**
- **Measuring programmes for surface age range, measuring series for constant surface age or individual test**
- **Quality validation with signal colours by means of freely definable limits**



Technical data	BP50
	
Measuring range	
Surface tension ¹	15 to 100 mN/m
Temperature	5 to 95°C
Resolution	
Surface tension	0.1 mN/m
Temperature	0.1°C
Surface age ¹	15 to 16 000 ms
Interface	USB
Power consumption	2.5 W
Power supply	5 VDC (via USB)
Weight	600 g
Dimensions	70 × 40 × 250 mm (W×D×H)

¹ depending on capillary and liquid

Checking the surfactant content on site

Surfactants as wetting or cleaning agents change the surface tension. Measurement of the dynamic surface tension with the hand-held device BP50 reveals directly on site whether sufficient surfactant is dissolved.

Concentrations above the critical micelle concentration (CMC), as is characteristic for cleaning baths, cannot be distinguished with static measurements of the surface tension. The dynamic bubble pressure method of the BP50 however reacts sensitively to changes in concentration even above the CMC.

Expert for high-speed

For high-speed processes such as printing, spraying or coating, it is the dynamic surface tension in the short-term that is decisive. The dynamic bubble pressure technique of the instrument detects the surface tension which occurs just after surface formation at surface ages between 15 and 16 000 ms.

Quality in hand

The measuring system, consisting of capillary, air supply, pressure sensor and a temperature sensor, is contained in a mobile hand-held instrument – for on-site measurements. Disposable plastic capillaries do away with the hydrophobising process necessary for glass capillaries.

The instrument works almost independently of the capillary immersion depth – a clear advantage for rapid tests. Water or other solvents can be used for calibration at different temperatures.

The optional positioning system PA2510 turns the BP50 into a complete laboratory instrument.

Solutions for a lot of applications

- **Mobile use inside and outside of production facilities**
- **Checking cleaning and electroplating baths and solutions**
- **Development of formulations containing surfactants**
- **Optimisation of dynamic processes as spraying, coating, or printing**



Technical specifications are subject to change without notice.



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