BUBBLE PRESSURE TENSIOMETER – BPT MOBILE

MOBILE QUALITY CONTROL FOR CLEANING AND COATING BATHS

KRÜSS

Advancing your Surface Science

BATH CONTROL WITH JUST ONE CLICK

- **Mobile, one-click check of the surfactant content in baths**
- **Stand-alone instrument with intuitive touch display**
- **Disposable capillaries dispense with cleaning activities**

Industrial quality assurance is about reliability, speed, and ease of use. When it comes to regular checks of the cleaner or wetting agent content in a bath, our Bubble Pressure Tensiometer – BPT Mobile is prepared for these demands.

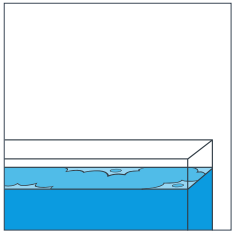
Checking your bath with our BPT Mobile

Immerse – click – read out: Capture the surfactant content of your bath within seconds using surface tension with our BPT Mobile. The quality inspector using it knows immediately whether the bath is okay thanks to an ad-hoc evaluation. Moreover, for proactive adjustment of the bath, the BPT Mobile shows how the surfactant content decreases over time due to removed parts, for example.

Quality at a touch

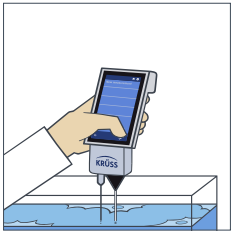
With the intuitive touch display, working with the BPT Mobile is almost like doing quality tests with a smartphone. Thanks to the large display, functions are easy to hit – even with lab gloves. Programmed measurement templates and the fact that the instrument is insensitive to changing immersion depths provide for user-independent quality control.

Step 1



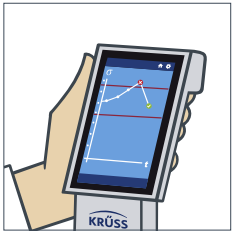
Is your bath OK?

Step 2



Immerse and click.

Step 3



Read out.

Includes all software it needs

Our BPT Mobile works independently from a computer or the power grid and is simply recharged via USB. Up to 20 million results find room in a clear, customizable folder structure. The display shows all necessary graphical representations and makes evaluation in other software obsolete – yet possible thanks to a fast data export to Excel.

Don't bother with subsequent cleaning

We have replaced costly, high-maintenance permanent capillaries that are customary for the Bubble Pressure technique with disposable ones. Inserting and ejecting them is a matter of seconds, cleaning them a matter of the past. The temperature sensor, which is read out for each measured value, can also be quickly removed when testing soiling or corrosive solutions.

COVERING THE WHOLE QUALITY PROCESS

- **Check the concentration within seconds and react quickly**
- **See how the surface tension changes while dosing**
- **Set up the whole QC process with one instrument**

TASKS AND APPLICATIONS

Checking the content of cleaner or wetting agent in a bath is an important QC task in many industrial processes:

- Cleaning as a preparation step before coating or bonding
- Electroplating
- Coating of solar cells
- Etching, e.g. for circuit boards

MEASURING OPTIONS

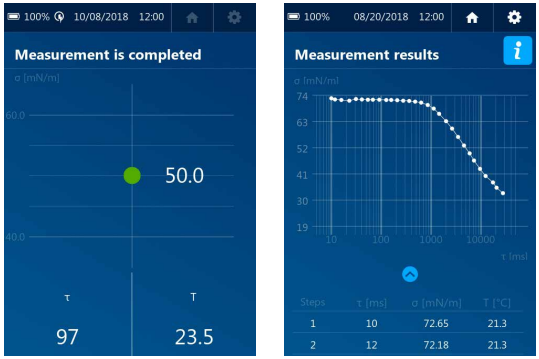
- Bubble Pressure method: Surface tension (SFT) is measured using the internal pressure of a bubble at an immersed capillary
- Monitoring at a single surface age with evaluation based on pre-defined limits
- Continuous measurement of SFT while changing the concentration
- Determination of the SFT dependent on surface age between 10 and 30,000 ms
- Temperature measurement and documentation

Three measuring modes for every QC task

With just a click, a *Monitoring* measurement gives the instant result in the framework of the regular quality routine. The BPT Mobile uses a defined bubble production speed (*surface age*), presents the result within seconds and automatically evaluates it using pre-defined quality limits. Charts with the history of results, even independently for several baths, help you estimate when the content will leave the quality range so you can intervene in time.

Measurements in the *Continuous* mode record a live value over time. When adding the active substance to the bath you instantly see the effect and know exactly when to stop.

The *Dynamic* mode of the BPT Mobile can spare you a separate lab instrument for setting up the quality process. With a wide surface age range between 10 and 30,000 ms, this mode reveals the dynamic behavior of the surfactant. Using curves for different concentrations, you will not only find the optimum surface age for the regular *Monitoring* measurements, but also know what concentration is related to each result.



Monitoring and dynamic measurement with BPT Mobile

ALWAYS CLOSE TO YOU

At KRÜSS, we combine technical know-how and scientific expertise with plenty of passion. That is why we not only produce high-quality measuring instruments for surface and interfacial chemistry – we offer a unique combination of product and scientific consulting. Our continuous know-how transfer ensures that not only we at KRÜSS keep pace with scientific developments, but also our customers.

In this way, we help you to optimize and make better use of your technologies. This has made us the global market leader in the field of surface and interfacial tension measurement. As a matter of course, we will gladly support you with further information as well. Feel free to ask us about publications, application cases, and helpful information about other KRÜSS products. We are always close to you.

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