



## BTG INSTRUMENTS

### HIGH-PERFORMANCE SOLUTIONS FOR THE ENHANCEMENT OF YOUR WET END PRODUCTIVITY

#### BTG - MÜTEK SZP-06 SYSTEM ZETA POTENTIAL ... KNOWS WHAT'S ON YOUR FIBER

The **Mütek SZP-06 System Zeta Potential** detects the surface charge of fibers and fillers. Measuring samples before and after contact with a chemical additive evaluates the efficiency, for example, of a starch or a wet strength agent in the papermaking process. The SZP is becoming a standard tool especially as process samples can be taken as they are, and do not have to be changed for e.g. electrophoresis.



By using the tailor-made software **Mütek ChargeView** results obtained by the **SZP-06** can be transferred in a database to administrate them and also compare them with measurements of the **Mütek PCD-04 Travel**.

#### Measuring Principle

The centerpiece of the SZP is a plastic measuring cell with ring and screen electrodes. A fiber sample is drawn into the cell by applying a vacuum. At the screen electrode a fiber plug forms. A pulsating vacuum causes the aqueous phase to oscillate through the plug, thus shearing off the counterions and generating a streaming potential. The zeta potential is calculated by using the measured streaming potential, conductivity, and the pressure differential.

For pigment measurements, the SZP-06 is offered with a special set of electrodes.

#### Benefits

- Know charge conditions of your fiber
- Characterize fillers and pigments
- Observe efficiency of functional chemicals
- Optimize chemical dosage

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