

# Evolution Powder Tester: Measurement of Powder Flowability



**The Evolution Powder Tester** is an economical and easy-to-use powder flow tester which measures the unconfined yield strength of a powdered material directly. It operates standalone with touchscreen or with a PC.

### Evolution Powder Tester Advantages:

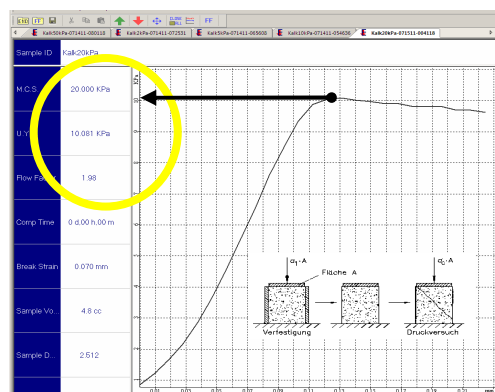
- Measures powder flowability fast and directly
- At a fraction of the cost of competitive instruments
- Easy time consolidation measurement of multiple samples
- Time consolidation also at high temperatures possible

**Working Principle:** The powder is filled into the measurement cup of the EPT. The sample cup is placed into the instrument and is automatically compressed to a given value (major consolidation stress). In a second step the instrument pushes the sample cake out of the cup and slowly increases pressure automatically until breakage of the powder cake. The maximum pressure reached is the unconfined yield strength. Compression force divided by unconfined yield strength is the flow factor.

Alternatively several sample cups can be stored under load with weights at ambient condition or in a climate chamber. Afterwards they are placed in the EPT instrument and powder cake strength is measured again automatically.

### Measurement Results:

- Unconfined Yield Strength
- Flow Factor
- Flow Function
- Compression curve
- Time-, Humidity-, Temperature effects



Measurement of unconfined yield strength

### Technical Data:

- Size 8 x 11 x 38 cm
- Weight: 3.5 kg
- Sample size: 5 or 30ccm
- Pressure range: 1 – 1000 kPa
- Analysis time: 2 min



Time Consolidation of 3 samples in a climate chamber