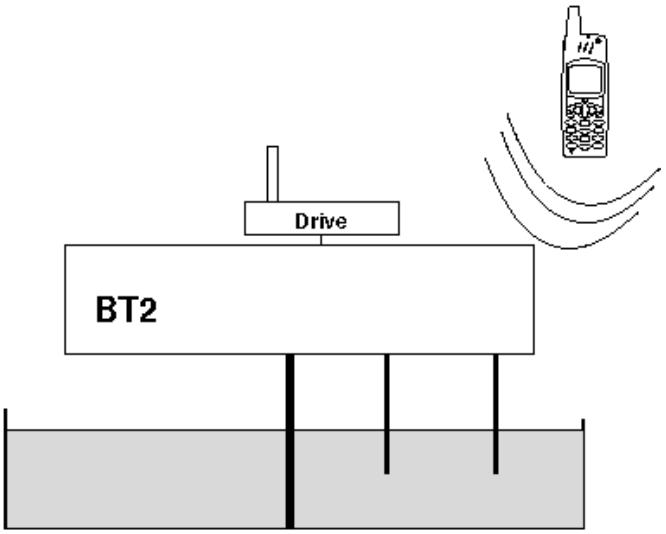
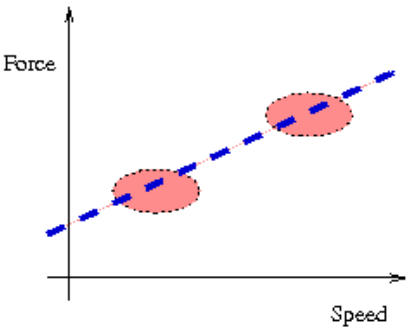
SCConcrete Rheometer BT2

Application





The BT2 is a compact rheometer for fresh concrete. In opposite to the spread table the concrete is tested at various loads. Therefore you can determine a relative yield-stress and a relative viscosity. The construction avoids structural breakdown and segregation during measuring. The BT2 is small, battery driven and easy to use.

Design

A sample of test material is placed in a sample container. The BT2 is fixed in the middle of the container and turned one round by hand. The internal processor monitors the measuring data i.e. The momentum on the three probes and the angular velocity. On completion of the measurement the readings may be wireless transfered and displayed at an external Palmtop.
At the most rheometers the shear stress is measured at various speeds when a probe is rotating in the container. With the BT2 you will get two speeds at the same time. So one convolution is enough. You will never measure on the same place two times. So there is no segregation of the aggregates and the mortar.

The system is driven by hand or electrical , and all the electronic is power independent. The ideal instrument specially designed for the building site.

How it works.

- Fill about 19l fresh concrete in the specimen container.
- Switch on the BT2, in this moment the force sensors are automatically calibrated.
- Then set the BT2 on the shaft in the middle of the container.
- Press the start button
- Turn the wheel by hand until the BT2 turned one round., or start the electrical drive
- The data are now non volatile stored in the BT2.
- Up to 35 datasets can be stored in BT2.
- Afterwards you can transfer the data via

Schleibinger Geräte
Teubert u. Greim GmbH
Gewerbestrasse 4
84428 Buchbach, Germany
Tel: 0049 8086 94014
Fax: 0049 8086 94014
http://www.schleibinger.com
e-mail: info@schleibinger.com

the infrared (IRDa) interface to a Palm hand held computer which is delivered with the BT2. (Android based smart-phone from May 2012)

- On the palm relative yield stress and relative viscosity are calculated and displayed both numerical and graphical .
- At your office you may transfer this datasets to your notebook ore desktop PC
- With a mobile phone coupling set you can also transfer the datasets as an e-mail to any place on the world.

Examples

Figure3

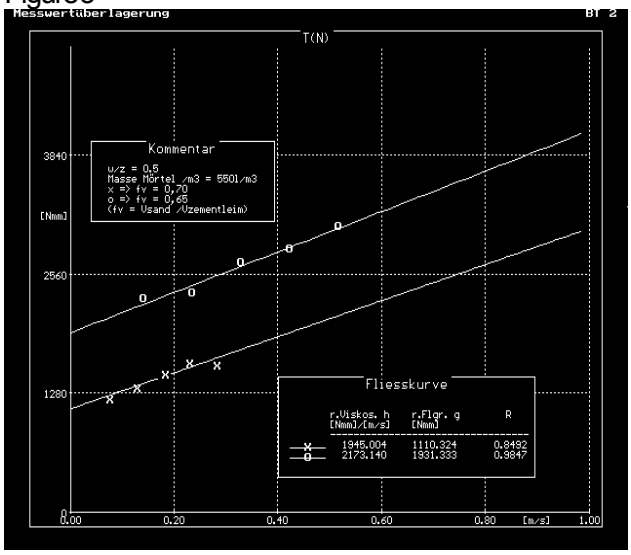
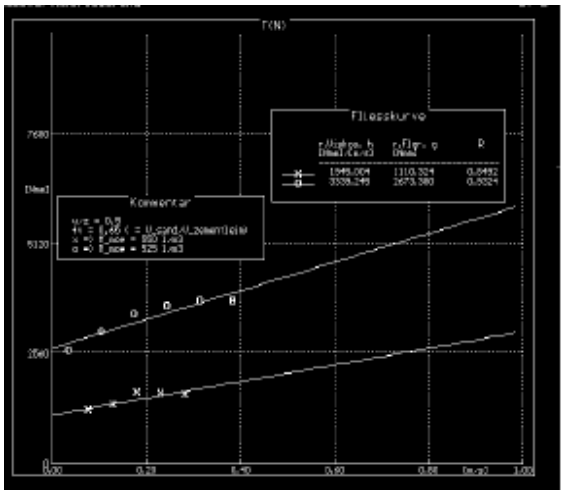
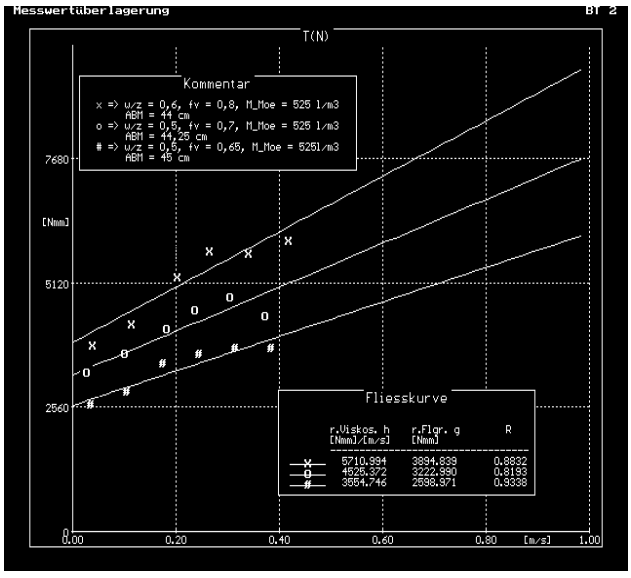


Figure 3 shows two concrete flow curves with different filling ratios of the mortar. The volume mortar per cubic meter concrete is constant.



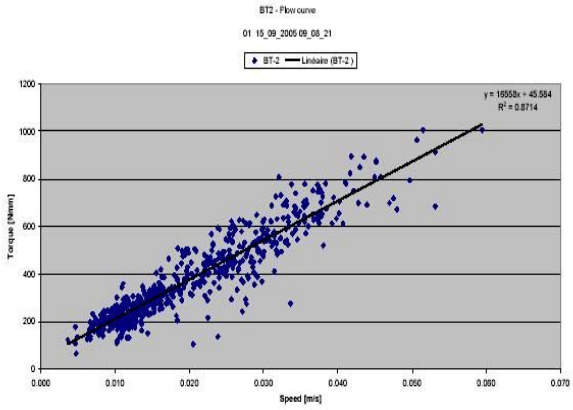
In the next figure you see 2 flow curves where the amount of mortar / m³ is different the lower curve has 550 l/ m³ the upper one 525 l/ m³ . Figure 5 shows three specimens with near the same spread table value (44 cm, 44,25 cm and 45 cm). You see that nevertheless you will get three quite different flow curves. This is clear because the spread table value is mixed result depending on the viscosity and the yield value.

Figure 5



Schleibinger Geräte
Teubert u. Greim GmbH
Gewerbestrasse 4
84428 Buchbach, Germany
Tel: 0049 8086 94014
Fax: 0049 8086 94014
http://www.schleibinger.com
e-mail: info@schleibinger.com

SCConcrete Rheometer BT2



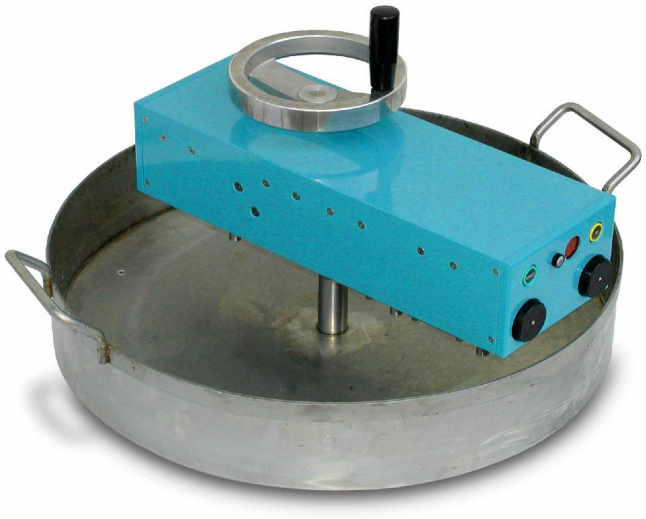
Data acquisition with a Glucose at 5°C

Five good reasons for the BT2..

- Short measurement
- easy handling
- portable
- no structural breakdown during the measurement
- no segregation ore sedimentation during the measurement

and *not expensive* !

Price : incl. Palm © , software, specimen container, battery charging unit.



BT2 with hand drive and smaller vessel

Technical data

Container diameter	50 cm
Height of the shaft	130 mm or 260mm
Specimen volume	19.6 Liter or 40 Liter
Length measurement arm,	43 cm
Length probes	90 mm
Measurement range torque	0-3 Nm
Measurement range speed	0-4 m/s
Resolution angel	1000 / 2 pi
Display	Graphical display in the external Palmtop
Handling	2 buttons + external Palmtop (included)
Interface	IRDA © or Bluetooth
Power supply	6 cells battery pack
Weight wo container	ca. 6.9 kg or 15.0 kg

Schleibinger Geräte
Teubert u. Greim GmbH
Gewerbestrasse 4

84428 Buchbach, Germany
Tel: 0049 8086 94014
Fax: 0049 8086 94014

http://www.schleibinger.com
e-mail: info@schleibinger.com