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**To meet the highest  
concrete specifications...**



**the aggregate is tested  
by the LOLK  
KONOMETER 620.**

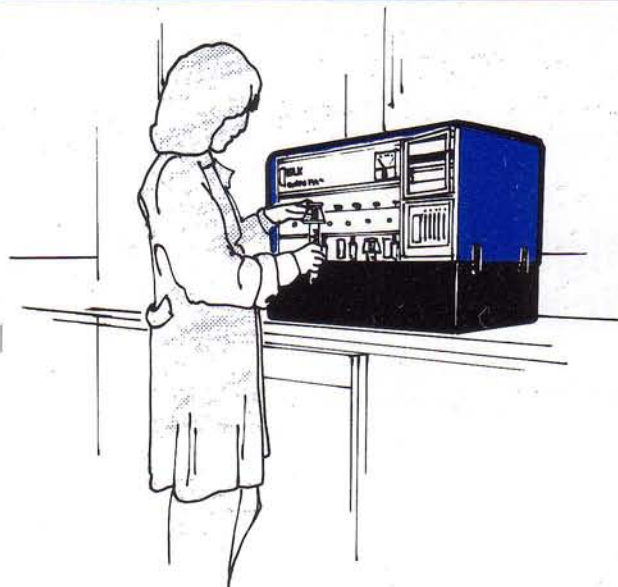
The KONOMETER 620 tests the alkali-aggregate reactivity in only 20 hours by means of the chemical shrinkage method.

**Advantages**

- Quick, continuous chemical testing method.
- Accurate and reproducible
- Full hardcopy documentation by reaction curves.
- 6 samples are tested simultaneously.
- The method is officially approved in Denmark.
- 20 hour results are equivalent to 8 weeks of mortar bar expansion.

The KONOMETER 620 is used by leading laboratories for research and development work as well as for quality control on a routine basis.

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## Measuring principle.

Aggregate reacting with alkali exhibits a chemical shrinkage depending on the degree of reactivity. The shrinkage is measured by the KONOMETER 620 by recording the displacement of the pistons in special test syringes. The shrinkage curves are plotted on a paper chart.

Chemical shrinkage testing by the KONOMETER 620 is the quickest, most accurate, and most reproducible alkali-aggregate test today.

Standard test conditions: 20 hours, 50 °C, and 10 normal NaOH - correspond to 8 weeks of mortar bar expansion at 50 °C.

## Test procedure.

56 grammes of each of the fractions 0.5-1, 1-2, and 2-4 mm are put into each of 3 test syringes. After the samples have been saturated with water 10 N NaOH is added. The test syringes are fitted with their pistons and placed in the sample holders at thermostatically controlled temperature.

After 20 hours the shrinkage of each fraction is read on the paper chart and the readings are weighted according to the particle size distribution to form a combined result, expressed in ml shrinkage per kg material.

## Technical data.

### Transducers:

Range: 0 - 10 ml/kg.  
6 separate 4-20mA current loops.  
6 separate output terminals.  
Accuracy : 0.5%  
Transmission to PC computer via RS 232 C interface (option).

### Recorder:

6 point paper chart recorder, 6 colours, 10mm/h.

### Thermostat:

0-55 °C, +/- 0.15 °C.  
Vessel containing 22 litres of silicone oil.

### Power Supply:

220 V AC 50 Hz, 1000 W + 50 W.  
Ambient temperature: 0-40 °C.

### Dimensions:

WxLxH 360x660x500 mm, 30 kg excl. thermostat oil.

### Accessories:

12 long test syringes (polypropylene) for app.60 grammes of aggregate.  
Each test syringe can be reused for a limited number of test runs.

Additional syringes are supplied from manufacturer.

Other applications of chemical shrinkage measurement by means of the KONOMETER 620:

- Hydration of cement: The chemical shrinkage curves closely follow the corresponding strength development measured by destructive testing, as well as the heat development measured by the adiabatic calorimeter - only much more simply and with 6 samples at a time.

Example: The 28 day strength can be predicted after 10 hours.

- Flyash, microsilica etc. can be characterized in the same way.

KONOMETER is a registered trademark of LOLK Produktudvikling ApS, Denmark.



**LOLK**  
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