# **ConReg System Maturity Meter for Concrete**

ConReg Maturity Meter follows and presents the concrete temperature development while it is in progress in the construction. The strength is calculated continuously and immediately gives an answer to, for instance, when the formwork can be stripped or the structural element can be loaded.

The measuring often has a decisive importance for the final result. By the continuous supervision, there are also great opportunities to influence the hardening development in the correct direction. There is only one chance per casting to achieve a satisfactory result. One single mistake may be devastating to the security, economy and durability of the construction in the future.

The ConReg Maturity Meter helps you to take that change!





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## **ConReg System** Security - Economy - Quality

#### Temperature Measurement in Newly Cast Concrete

Temperature measurement in newly cast concrete is an important check during the sensitive early age period, when the concrete generates heat and develops its strength. The strength growth is controlled by the temperature during the early age period. A higher temperature means a faster strength growth, cooling gives a slower growth. Maturity measurement is important for all concrete construction with respect to security, economy and quality.

ConReg Maturity Meters give unique possibilities concerning knowledge of the real strength in the concrete construction.

#### Measurements with Own Concrete Data

With ConReg System there is a possibility to take into account own data on the concrete in question. When doing measurements this gives a considerable higher precision on strength in the construction. An additional unique possibility by ConReg System is that own concrete data easily can be created in the laboratory at the concrete factory.

### To Measure Directly in the Construction

As the concrete has zero strength at casting and the strength growth is dependent on the concrete temperature, there is a great advantage to be able to measure directly in the construction. The weather changes may cause varying temperatures inside the construction, which naturally influences the strength growth in different directions. By following the real temperature and the associated strength growth inside the construction gives increased security. Hereby, the material properties of the concrete are utilized more efficient, making the production to be more economic.

#### How is the Measurement Performed?

Using ConReg means that measuring wires are drawn to the places inside the construction where the temperature and strength are requested. The measuring wires are so called thermo-couples with a two-way wire consisting of two different metals in each of the single wires. One end of the measuring wire is placed inside the construction and the other end is connected to the measuring instrument. The end placed inside the construction consists of peeled wires that are twisted together forming a temperature sensor.

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#### **Our Measuring Instruments**

ConReg Maturity Meters is a series of instruments that can record up to 12 different measuring points. The instruments are specially designed for the tough reality on site and they stand rain, nasty weather and harsh treatment without yielding its function. You yourself decide how often the measuring instrument will record the temperature. It is often appropriate to record every half hour. At shorter measuring periods up to about a day an interval of 10 - 15 minutes may be appropriate

### ConRegSoft - Our New PC-program

Measured temperatures and associated strength levels are shown in ConRegSoft as easy to understand diagrams. The measuring instruments are controlled from the same software. The program is very professional designed and works under Windows XP. All measured data including other general information are stored in documents. Own concrete data for the concrete that will be applied can also be established in the program by the help a special testing procedure at the concrete factory.





### ConReg 706

The measuring instrument has six measuring channels. A built in processor calculates the temperature effect and calculates the strength growth. The result is shown on a LCD display. With the help of the display different measures can be performed, like start/stop of the measurements and different kinds of settings.

The measured temperatures are stored in a memory, which later can be downloaded to a PC through a cable or a GSM modem.

### ConReg 712

ConReg 712 is a further development of ConReg 706.

The measuring instrument has twelve measuring channels. It is specially designed for large civil engineering construction works with comprehensive demands on follow up of the hardening development. In these cases there also is follow up and control of different measures to minimize the appearance of cracks.