

### Product Information 7306

## Automatic Vicat Needle Instrument ToniSET Compact

#### Application

PC controlled instrument for the determination of setting characteristics of cement and gypsum in accordance with EN 196-3, EN 12379-2, ASTM C191 or ASTM C472. Initial and final setting time as well as the complete setting curve are determined.

#### Advantages

- automatic test process, even over night
- reproducible results
- user-friendly, self explanatory computer programm
- very fast, independent test start by pre-defined examinations and storage in databases
- independent test parameters for all 6 samples possible
- all results and presetting are saved in databases
- exact positioning of needle on the sample surface
- automatic cleaning and drying of Vicat needle
- complete service test program for hardware and software
- definable penetration schematic
- quick measurement modus with suppressible cleaning step
- representation of setting process as curve and as individual values
- automated detection of initial and final setting time
- free choice of test reports and certificates
- bidirectional data transmission to a host computer (LIMS)
- precise electronic measurement of penetration depth, by incremental system, resolution 0.05 mm
- connection of standard PC without any additional hardware direct by one RS 232
- high durability due to a solid and high quality construction

#### Design

The ToniSET COMPACT consists of a three axes instrument with six measuring stations. The stations are circular arranged around the central movement tower. All axes are handled by gear driven stepmotors. The stop positions will be controlled by touchless optical switches. The drop rod with is equipped with frictionless electronic measuring system. The samples are installed in a round test tank. The test can be performed in air or under water. The level is adjustable. After each penetration an automatic cleaning system for the Vicat needle is used.



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According application definition, the different weights of drop rods are ensured.

#### Working Principle

To control and evaluate the tests, a standard PC is needed. The software VICAT DB runs on Windows® ( 98 / NT / ME / 2000 / XP ). It is self-explanatory and easy to handle. For tests, the sample identification has to be entered, only. Subsequently the sample is placed and the test will be started. This will be done totally automatically. Penetration depths of the vicat needle are measured electronically and recorded. Evaluation takes place automatically or manual. During testing it is always possible to read the actual measured value and follow the progress of setting at the display of the curve. A quick test procedure allows short penetration sequences in intervals of 5 seconds.

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#### Standard Delivery includes

- Basic unit model 7306
- 6 conical moulds incl. base plates
- Vicat needle or conical penetrometer
- Software VicatDB

#### Optional Accesories

##### Performance unit 5556

for placing the ToniSET Compact compatible to the ToniSYSTEMLABORTATORY

##### PC working table 5050

compatible to the ToniSYSTEMLABORTATORY

##### Cover hood 7306.10

to obtain a higher humidity and to protect the user (CE)

##### Cover plate 7306.015

for higher humidity

##### Thermostat 7306.020

for the precise tempering of the water temperature in the test tank

#### Wear Parts

##### Conical mould ring (EN 196) 7306.003

dimensions Ø 70/80 mm x 40 mm

##### Conical mould (ASTM) 7306.010

dimensions Ø 60/70 mm x 40 mm

##### Base plate 7306.004

##### Set of Vicat needles 7306.007

according to EN 196 part 3, Ø 1.13 mm

##### Set of Vicat needles 7306.009

according to ASTM C109 / C472 Ø 1.00 mm

##### Conical penetrometer 7306.008

according to EN 12379-2

For further information please contact

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#### Technical Data

Model		7306/EN	7306/ASTM
Application (cement / gypsum)		EN 196-3 / EN 13279-2	ASTM C 191
Vicat needle Ø	mm	1.13 / cone	1.00
Vicat moulds Ø x height	mm	70/80 x 40	60/70 x 40
Power supply			
- voltage	V	110 / 230	
- frequency	Hz	50-60	
- power consumption	kW	0.5	
Dimensions			
width x depth x height	mm	500 x 660 x 800	
Weight net	kg	70	