

Product Information Model 7301 / 7302

Automatic Vicat Needle Instrument ToniSET ONE / ToniSET TWO

Application

Microprocessor controlled Vicat instrument for the determination of the setting time of cement, gypsum or mortar according to EN 196-3, EN 13279-2, EN 480-2, ASTM C191, ASTM C472 or ASTM C807.

Advantages

- integrated, PC-independent control with 5.7" colour display
- automatic test execution, including needle cleaning after each penetration
- schedular or graphical display of initial set, final set as well as complete setting behaviour
- very accurate measurement of the penetration depth by an incremental system
- internal tempering of the water to 20°C at standard laboratory conditions
- user-friendly, self-explanatory operation
- possibility to test under water or dry
- quick modification for all standards by simply exchange of the drop rod
- predefined test start after only a few inputs
- flexible installation due to compact dimensions
- all results and test parameters are stored in a database
- accurate, standardized positioning of the needle onto the surface of the sample
- automatic cleaning of the needle resp. drying of the gypsum cone
- high repeatability of the results
- data transmission to a PC via a serial port (USB type) for extended test evaluation by the optional software VICAT DB

Design

The ToniSET One resp. the ToniSET TWO consists of a sturdy sheet steel housing, in which all components of the instrument are integrated. The microprocessor control and all electrical parts are built into the left side of the housing. The instrument is operated via a 5.7" color display in combination with a system keypad. A three-axle drive system enables to drive to any position of the sample surface. The drop rod is equipped with a contact-free electronic measurement system. The modification of the instrument for different drop weights



Automatic Vicat Needle Instrument

resp. other test materials is realized by an easy and quick change of the drop rod. The needle is cleaned after each penetration by an integrated, automatic cleaning device. The gypsum cone is dried automatically after the cleaning. The test basin is equipped with a circulation system, that enables also tests under water. By a serial interface (USB-type), data can be exported to a PC for further evaluation.

Operating Principle

The prepared sample is placed in the test basin and the respective parameters are selected and set via the keypad on the display. For the performance of a test only a sample identification is needed.

The penetration depths of the needle are measured and stored electronically. After each penetration the needle respectively the cone is cleaned automatically. During the complete test sequence the actual measurement values and the setting progress can be read out from the display.

All results are stored together with the corresponding parameters within the internal data base of the instrument.

The evaluation of the tests can be done either automatically or manually.

Product Information Model 7301 / 7302

Automatic Vicat Needle Instrument Toni**SET** ONE / Toni**SET** TWO

Delivery Content

- compact unit model 7301 with one measuring station or model 7302 with two measuring stations for testing according to EN or ASTM
- base plate(s) with centering
- Vicat mould(s) according to EN resp. ASTM
- Vicat needle according to EN resp. ASTM
- drop rod according to EN resp. ASTM

Optional Accessories

100g drop rod acc. to Vicat with gypsum cone
for testing gypsum according to DIN EN 13279

(before DIN 1168)

1000g drop rod acc. to Vicat
for testing mortar according to DIN EN 480-2

Thermostat

with built-in refigerating machine for accurate tempering of the water for testing with different temperatures than 20°C

Hood for the test area (ASTM)

Evaluation software VICAT DB

Wearing Parts

Felt ring for needle cleaning

Drying cartridge for the gypsum cone

Vicat mould according to EN 196

Dimensions: Ø 70/80 mm x 40 mm height

Vicat mould according to ASTM

Dimensions: Ø 60/70 mm x 40 mm height

Vicat needle cement, 5 pieces

according to EN 196, length 50 mm, Ø 1.13 mm

Vicat needle cement, 5 pieces

according to ASTM C 109, length 50 mm, Ø 1.00 mm

Base plate

for tests according to EN respectively to ASTM

Technical Data

		ToniSET ONE	ToniSET TWO
Test stations		1	2
Electric supply			
- voltage	V	110 / 220	110 / 220
- frequency	Hz	50 - 60	50 - 60
- power consumption	kW	0.5	0.5
Dimensions			
- width	mm	554	670
- depth	mm	425	425
- height	mm	564	564
Weight	kg	45	55

For further information please contact:

Toni Technik Baustoffprüfsysteme GmbH

Gustav-Meyer-Allee 25

13355 Berlin

Tel: +49 30 / 464039-21

Fax: +49 30 / 464039-22

Email: sales@tonitechnik.com

www.tonitechnik.com