

CEMENT SOUNDNESS TESTER (LECHATelier)

The **C3251** Cement Soundness Tester is a mold used to determine soundness of cement by measuring the expansion of cement when heated in an atmosphere of steam or boiling water. The tester consists of a brass split ring and two long parallel indicating arms. As cement expands the ring is spread and the increased distance between free ends of indicating arms gives an index of soundness.



C3251



C3261

MODELS	DESCRIPTION	STANDARDS
C3251	CEMENT SOUNDNESS TESTER	ASTM C-183 / AASHTO T-127

ACCESSORIES	DESCRIPTION
C3261	WATER BATH, 110V / 60 Hz
C3262	WATER BATH, 220V / 50 Hz
C3301	LECHATelier FLASK, SPECIFIC GRAVITY

VICAT APPARATUS WITH MOLD

The **C3501** Vicat Apparatus is used for determining consistency and setting time of hydraulic cement. The apparatus consists of a frame, moveable rod with a variable weights and plunger assemblies, adjustable scale with graduations from 0-50mm, and a conical mold (**C3503**). The apparatus also has a reversible stainless steel plunger which is 10mm at one end and has a 1mm dia stainless steel needle on the other end. The **C3512** Modified Vicat Apparatus is very similar to the **C3503** except it uses a 400 g weight of 10mm plunger, indicator and added weight. The **C3512** is also furnished with the **C3503** mold. The **C3514** Time of Setting Vicat Needle Apparatus is similar to the **C3512** except it features a 17.5 dia needle for consistency determination; 400 g total weight. Also furnished with apparatus, is a 76mm I.D. x 40mm brass ring mold.



MODELS	DESCRIPTION	STANDARDS
C3501	VICAT APPARATUS	ASTM C-91 C-141, C-451, C-187, C-191, C-308, C-359, C-472 / AASHTO T-129, T-131, T-186
C3512	MODIFIED VICAT APPARATUS	
C3514	TIME OF SETTING VICAT NEEDLE APPARATUS	

ACCESSORIES	DESCRIPTION
C3502	FINAL VICAT NEEDLE
C3503	CONICAL MOLD, PLASTIC
C3521	FALSE SET CONAINE, 2" X 2" X 6" I.D.
C3707	2MM ST. STL. VICAT NEEDLE

MODIFIED VICAT APPARATUS

The **C3515** Modified Vicat Apparatus includes a 35 g magnesium cone for use on unsanded plaster. Also furnished with the apparatus is the **C3503** mold. The **C3516** is very similar to the **C3515** except it features an additional 15 g weight for 50 g total weight for use on sanded plaster. The **C3516** is also furnished with the **C3503** mold.



MODELS	DESCRIPTION	STANDARDS
C3515	MODIFIED VICAT FOR UNSANDED PLASTER	ASTM C-472
C3516	MODIFIED VICAT FOR SANDED PLASTER	

AUTOMATIC VICAT RECORDING APPARATUS

The **C3505** & **C3506** Automatic Vicat Recording Apparatus have a distinct advantage over the traditional manual types. Since manual types give inevitable differences in the test execution it is quite difficult to test the setting time of an hydraulic binder with accurate results. Air pockets, mixtures and clots create problems for determining precisely the initial and final setting times. The **C3505** & **C3506** executes the tests fully automatic, which offers absolute precision and eliminates manual error. The mold with the specimen has a spiral movement allowing 90 needle penetrations always in a different position. The probe weight is 300 gm and the needle has an end diameter of 1 mm. The penetration cycle of the probe is 30 seconds or at time intervals of 1, 5, 10, 15, or 30 minutes for each penetration. The chart rotates 2.5 mm for each penetration. The lower horizontal line corresponds to maximum needle penetration. At the end of the test the drum automatically returns to the original position. The set is furnished with 50 charts, two needles, two molds, glass plate and one writing pencil with set of leads. Dimensions: 200mm x 350mm x 420mm.



MODELS	DESCRIPTION	STANDARDS
C3505	VICAT RECORDING APPARATUS, 110V / 60 Hz	ASTM C-91, C-187, / AASHTO T-131 / EN-196 / DIN -1164. 1168 / NF P 15-414, P 15-431 UNE-80102 / BS-4550 / D.M. 3/6/68
C3506	VICAT RECORDING APPARATUS, 220V / 50 Hz	

ACCESSORIES	DESCRIPTION
C3507	VICAT NEEDLE, 1MM ST. STL.

MODIFIED VICAT CONE PENETROMETER APPARATUS



The **C3517** Modified Vicat Cone Penetrometer for mortar and masonry features a 10 cm scale with an aluminum cone and attached plunger. The total weight of the plunger assembly is 200 g. The apparatus also includes a frame, moveable rod with variable weights and plunger assemblies. Also featured is a 400 ml measure for sampling as specified by ASTM C-780.

MODELS	DESCRIPTION	STANDARDS
C3517	MODIFIED VICAT CONE PENETROMETER	ASTM C-780

WATER RETENTION DEVICE



The **C3751** is a device used in specification tests of masonry cement and physical testing of quicklime and hydrated lime. The unit consists of an aspirator (with mercury column relief), a 3-way stopcock, rubber gasket, flask, brass funnel, perforated brass dish, mercury manometer (indicates vacuum), associated hardware, with a wooden stand.

MODELS	DESCRIPTION	STANDARDS
C3751	WATER RETENTION DEVICE	ASTM C-91, C-110, C-207, E-149

ACCESSORIES	DESCRIPTION
C3752	FILTER PAPER, GRADE 95, 15 CM, 100/PKG