TESTING FRESH SELF COMPACTING CONCRETE (S C C)

ERMCO/EFNARC European Guidelines.

FREE FLOW AND TIME FLOW DETERMINATION

SPRAY-TEST

STANDARD: EN 12350-8

To evaluate the deformability of fresh concrete through free flow, and the time needed to spread a 500 mm diameter.
Applicable to concrete with aggregates of 25 mm max. size

C181 SLUMP CONE, galvanized steel, to EN 12350-2 Spec.

C170-01 PLATE, galvanized steel made, dimensions 900x900 mm, with engraved two circles having 210 and 500 mm diameter and central X cross.

FLOW TIME DETERMINATION V-FUNNEL TEST

STANDARD: EN 12350-9

To evaluate the segregation resistance of self-compacting freshly mixed concrete through the flowing speed from a funnel.
Applicable to concrete with aggregates of 25 mm max. size.

C171 V-FUNNEL, **stainless steel** made, stand mounted. The upper edge of the funnel is smooth and reinforced, and the outflow orifice is equipped of an openable seal valve.
Dimensions: 640x340x1050 mm
Weight : 20 kg approx.

C171-11 FILLING HOPPER stainless steel made, to pour the concrete into the funnel in one operation, as specified by the Standard.

V127 BOX, polythene made, to collect the concrete.

C262 STRAIGHT EDGE, 460 mm, to level the concrete.

CONFINED FLOWABILITY DETERMINATION

L-SHAPE BOX

STANDARD: EN 12350-10

To determine the confined flowability of self-compacting freshly mixed concrete, and to evaluate the filling and passing ability and segregation resistance.
Applicable to concrete with aggregates of 25 mm max. size.

C172 L-BOX, **stainless steel** made, consisting of:
- container with inside rigid surfaces,
- obstacle of two different interchangeable set of grids:
- one set of 3 vertical bars having Ø 12 mm and free light of 41 mm
- one set of 2 vertical bars having Ø 12 mm and free light of 59 mm
- gate in guillotine form

Dimensions: 712x280x682 mm
Weight: 40 kg approx.

S200-11 STRAIGHT EDGE, 300 mm long, galvanized steel, to level the concrete.

CONFINED FLOWABILITY DETERMINATION

U-SHAPE BOX

STANDARDS: UNI 11044 | RILEM report N. 23

To evaluate the filling speed and height of the concrete sample under its own self-weight, in the U-shape filling box, to determine the self-compactability. The test is performed with highly fluidised fresh concrete with superplasticiser.
Applicable to concrete with aggregates of 25 mm max. size.

C173 U-BOX, **stainless steel** made, with inside smooth walls, equipped of a flow obstacle formed by four vertical reinforcement bars. The bars have Ø 10 mm and the light between them is 35 mm.
A gate in guillotine form splits the vertical portion of the box from the horizontal one.

Dimensions: 480x250x680 mm
Weight: 20 kg approx.

S200-11
STRAIGHT EDGE, 300 mm long, galvanized steel, to level the concrete.

CONFINED FLOWABILITY DETERMINATION

J-RING APPARATUS

STANDARD: EN 12350-12

To determine the flowability, i.e. the flow time and the capability of the self compacting concrete to pass through obstacles.

C174 N

J-RING APPARATUS, galvanized steel made, having rectangular section 30x15 mm and median diameter of 300 mm.
The median circumference of the ring is drilled, and n. 16 cylindrical bars Ø 18x140 mm are fixed into the holes.
The bars have a close distance of 41 mm between them, to simulate a condition of higher density of the reinforced bars.

C174-01N

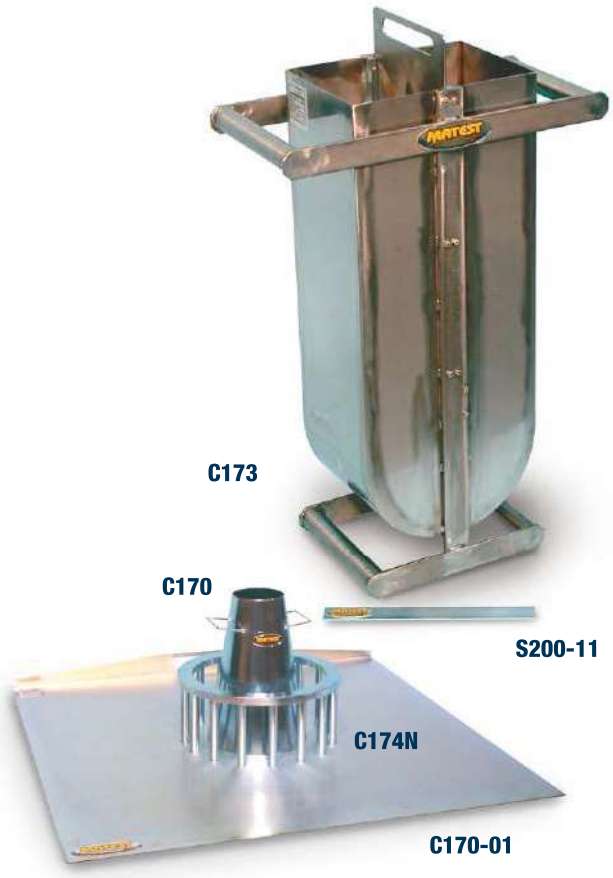
J-RING APPARATUS, similar to C174N, but having n° 12 cylindrical bars and 59 mm distance between them, to simulate a condition of standard density of the reinforced bars.

C170

SLUMP CONE, galvanized steel, conforming to EN 12350-2 Spec.

C170-01

PLATE, galvanized steel made, dimensions 900x900 mm, with engraved two circles having 210 and 500 mm diameter and central X cross.



C183N
VEBÉ TIME CONSISTOMETER NEW

STANDARD: EN 12350-3

The Vebé consistometer determines the consistency and workability of concrete, based on the same principle of slump test, but with the advantage of a mechanical action. The concrete is subjected to vibration after the cone has been removed, until a transparent disk placed on the material makes completely contact with it. The time required to perform the operation indicates the workability or VE-BE degree.
Supplied fully equipped.

Power supply: 230V 1ph 50Hz 250W
Dimensions: 400x250x690 mm
Weight: 100 kg approx.

C184N
VIBRATING TABLE (Vebé consistometer)

STANDARD: ASTM C1170-14

For determining the consistency and density of roller-compacted concrete. Similar to mod. C183, but conforming to ASTM C1170-14 Spec. with sliding weight of 50 lbs

*** Power Supply:** 230V 1F 50Hz 180W
Dimensions: 280x400x900 mm
Weight: 110 kg approx.

***Note:** The vibrating table is available also at: 230V 60Hz and 110V 60Hz

ACCESSORY for the C184N table

C184-10N SLIDING WEIGHT 20 LBS (that replaces the standard 50 lbs one) + base to fix a cylinder mould Ø 6"x12" (optional mod. C258-03) to conform the Vibrating Table to the ASTM C1176-14 Specifications.