

## Testing fresh SELF COMPACTING CONCRETE (S C C)

ERMCO/EFNARC European Guidelines.

### Free Flow and Time Flow determination. "Spray-Test"

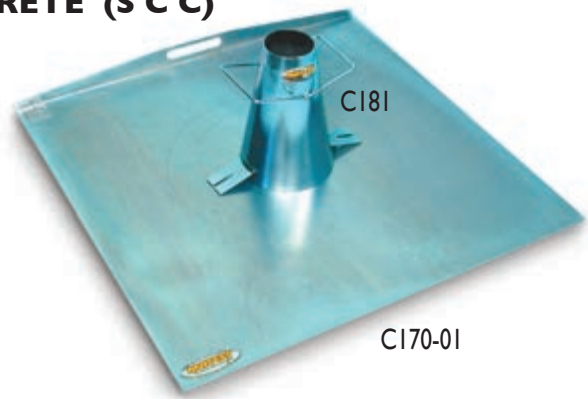
STANDARDS: EN 12350-8 / SCC / ERMCO-EFNARC  
UNI 11041 / RILEM report N. 23

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 905 x 905 mm, with engraved two circles having 210 and 500 mm diameter and central X cross.



### Confined flowability determination. "L-Shape box"

STANDARDS: EN 12350-10 / SCC / ERMCO-EFNARC

RILEM report N. 23 / comparable to UNI 11043

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 dia. 12 mm and free light of 41 mm
- one set of 2 vertical bars having dia. 12 mm and free light of 59 mm
- gate in guillotine form

Dimensions: 712 x 280 x 682 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 dia. 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: 480 x 250 x 680 mm  
Weight : 20 kg approx.

**S200-11**

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

### Flow time determination. "V-funnel test"

STANDARDS: EN 12350-9 / SCC / ERMCO-EFNARC

RILEM report N. 23 / comparable to UNI 11042

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: 640 x 340 x 1050 mm. Weight : 20 kg approx.

**VI27** BOX, polythene made, to collect the concrete.

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

**C262** Straight edge, 460 mm, to level the concrete.

