V-Funnel Test Set

LT-C0055 | SCC flow-time testing

Stainless-steel funnel • Quick-opening bottom gate • Vertical stand



22.4 mm

MAXIMUM AGGREGATE FOR EN METHOD

18 kg

APPARATUS WEIGHT

EN 12350-9 • 55 × 30 × 104 cm • Result: V-funnel flow time (s)

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Photographs and Components

V-shaped funnel, upper filling area, discharge gate and support stand

The V-funnel measures the time taken for self-compacting concrete to discharge under gravity. A stainless-steel funnel and bottom gate provide controlled test initiation. The measured time supports comparison of flow and viscosity-related behaviour.

V-SHAPED FUNNEL

The stainless-steel body directs concrete towards the narrow outlet. Clean and wet internal surfaces before testing.

UPPER FILLING AREA

Concrete is placed from the top. Level excess concrete and prepare the specimen to the selected method.



SUPPORT STAND

The rigid vertical stand holds the funnel stable. Set it on level ground and allow working space below the outlet.

BOTTOM DISCHARGE GATE

The quick-opening gate starts flow. Begin timing as the gate opens and observe the outlet.



Narrow outlet and bottom gate



Vertical stand and funnel support

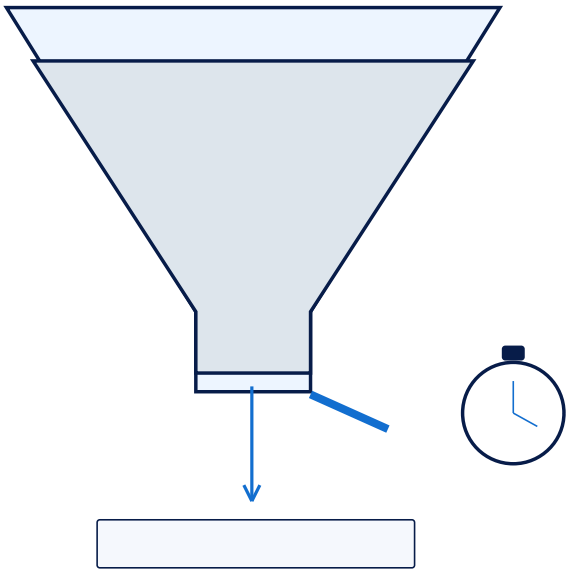
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Operating Principle and Flow Time

Prepare funnel • Fill • Open gate and start timing • Observe discharge

GRAVITY DISCHARGE • SCHEMATIC SECTION

FRESH SCC SPECIMEN



tV = FUNNEL DISCHARGE TIME (s)

GATE OPENING: START • COMPLETE DISCHARGE: END

Prepare and Fill

Clean and wet the internal surfaces. Close the bottom gate, fill with concrete and level the top.

Open Gate and Start Timing

Start the timer as the gate opens. Observe concrete flowing through the outlet under its own weight.

Complete Discharge

Stop timing when the funnel is empty. Record the result in seconds with specimen identification.

The V-funnel result is a flow time rather than a direct viscosity coefficient. Compare mixtures using consistent preparation and timing conditions. Record any interruptions or blockage observed during discharge.

Method and Specimen Suitability

EN 12350-9 defines V-funnel flow-time testing of self-compacting concrete. The method is unsuitable for concrete with a maximum aggregate size greater than 22.4 mm.

Record specimen identification and method. Follow the selected procedure for filling, holding and gate opening. Match timing start to gate opening and assess the discharge end point consistently.

Evaluation and Cleaning

Evaluate shorter or longer flow times together with mix design. Review slump-flow, L-box and segregation-resistance data where required.

Clean the internal funnel surface, outlet and gate after every test. Hardened concrete residue can affect later discharge. Check gate movement and stand stability before filling again.

LT-C0055

Specifications and Use

LT-C0055 • V-funnel testing of self-compacting concrete

Technical Feature	Value / Description
Product Code	LT-C0055
Product Name	V-Funnel Test Set
Concrete Type	Self-compacting concrete (SCC)
Application	Flow-time and flow-behaviour assessment
Measured Result	V-funnel discharge time, seconds (s)
Flow Principle	Gravity discharge through the funnel outlet
Funnel Material	Stainless steel
Discharge Mechanism	Quick-opening bottom gate
Supporting Arrangement	Rigid vertical stand
Overall Dimensions	55 × 30 × 104 cm
Weight	18 kg
Test Reference / Aggregate Limit	EN 12350-9 / maximum aggregate 22.4 mm

Gate Opening and Timing

Start timing as the gate opens and stop at complete discharge. Keep the funnel stable and clean the outlet before each test. Record the result in seconds.

V-Funnel Test Workflow

01
Prepare
Clean and wet the funnel; close the gate.

02
Fill
Place concrete and level the top surface.

03
Time the Flow
Open gate and time complete discharge.

04
Record and Clean
Record time; clean funnel and gate.

Product Page | liyatest.com.tr/en/urun/v-funnel-test-set/