Hydrometer Test Set

LT-S0005 / LT-S0008 | Particle-size analysis of fine-grained soils

Circulating bath • Sedimentation cylinders • Specimen dispersion



50 L

HYDROMETER BATH VOLUME

6 × 1000 ml

SEDIMENTATION CYLINDERS SUPPLIED

AASHTO T88 • TS 1900-1 • Hydrometer sedimentation analysis

Photographs and Bath Components

Sedimentation cylinders, bath, heater and temperature monitoring

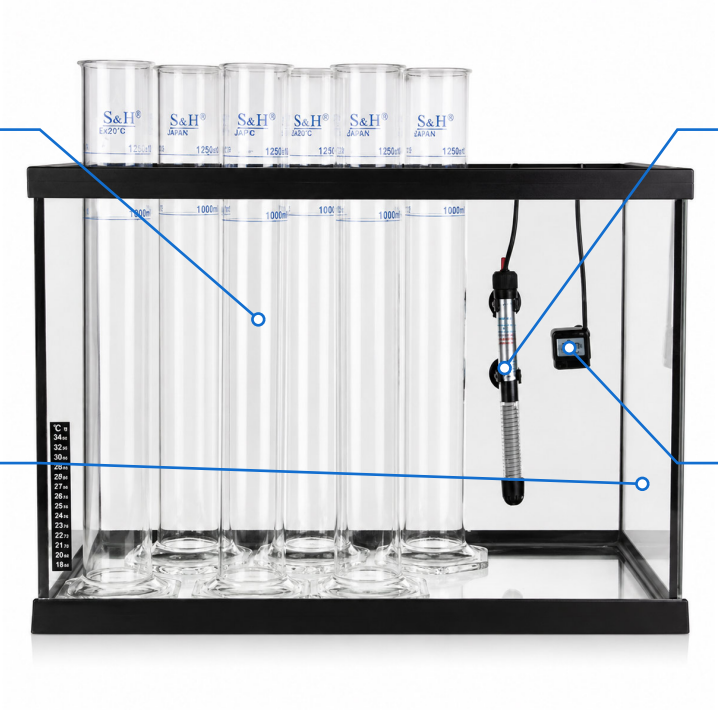
The hydrometer set evaluates fine-grained soil particle-size distribution through sedimentation in liquid. Take hydrometer readings at specified times in the prepared suspension; the bath supports temperature conditioning of the cylinders.

SEDIMENTATION CYLINDERS

Six 1000 ml cylinders are supplied. The bath accommodates up to eight cylinders.

HEATING ARRANGEMENT

The heater and circulation system support controlled bath conditions.



BATH TANK

The 50 L water bath supports shared temperature conditions for the cylinders.

TEMPERATURE MONITORING

Monitor temperature together with sedimentation behaviour and hydrometer readings.



Digital bath option and control unit



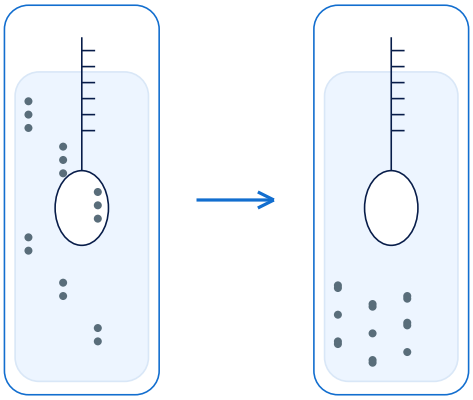
Heater and bath temperature display

LT-S0005 / LT-S0008

Settling Time and Hydrometer Readings

Disperse and mix • Transfer • Read at timed intervals • Evaluate

SUSPENSION + SETTLING + TIMED READING



t1 t2

READING: HYDROMETER IN THE SUSPENSION

RECORD: ELAPSED TIME AND TEMPERATURE

EVALUATION: FINE-FRACTION PARTICLE DISTRIBUTION

Evaluate readings with method-required corrections

REPRESENTATIVE SEDIMENTATION DIAGRAM • NOT TO SCALE

Disperse and Prepare the Specimen

Prepare soil and water with a suitable dispersant. Mix and transfer into the cylinder.

Take Timed Hydrometer Readings

Define sedimentation start. Read at method-specified times and record temperature.

Evaluate Particle-Size Distribution

Apply required corrections. Use readings and specimen information to determine distribution.

Particles settle with time; larger particles generally settle faster and smaller particles more slowly. Hydrometer readings at specified intervals allow suspended fine material to be evaluated. Time, temperature and method-required corrections are used together in the calculations.

Bath Capacity and Cylinders

The circulating bath has a 50 L volume and space for eight cylinders. The standard set includes six 1000 ml sedimentation cylinders. LT-S0005 is the bath-equipped set and LT-S0008 the digital-bath set option.

Prepare and mix specimens according to the method. Preserve measuring conditions after settling starts and record bath temperature with the test data.

Hydrometer, Mixer and Dispersant

The standard 151H hydrometer measures 0.995-1.038 specific gravity with 0.001 scale divisions. A 152H hydrometer can be ordered separately. The high-speed soil mixer supports dispersion before sedimentation.

Sodium hexametaphosphate and a 600 ml glass beaker are included. Select dispersant quantity and preparation conditions according to the method; apply hydrometer reading and temperature corrections.

Technical Specifications and Set Components

LT-S0005 / LT-S0008 | Bath, cylinders and specimen preparation equipment

Technical Specification	Value / Description
LT-S0005 / LT-S0008	Hydrometer set / Hydrometer set with digital bath
Bath Volume / Capacity	50 L • Bath accommodates 8 cylinders
Cylinders Supplied	6 cylinders • 1000 ml
151H Hydrometer	0.995-1.038 specific gravity • 0.001 divisions
LT-S0005 Dimensions / Weight	330 × 630 × 450 mm • Approximately 20 kg
Test Application	Fine-grained soil sedimentation analysis

Component Code	Description
LT-S0003 / LT-S0004	Hydrometer bath / Digital hydrometer bath
LT-S0005/2 • /3	Circulation pump • Heater
LT-S0007	High-speed soil mixer • Approximately 13,000 rpm
LT-S0005/4 • /6	151H hydrometer • 1000 ml cylinders, 6 pcs.
LT-G0718	Sodium hexametaphosphate • 1 kg
LT-G0404	Glass beaker • 600 ml

Record Reading Time, Temperature and Specimen Together

Record specimen and dispersant information and define sedimentation start. Record each hydrometer reading with time and temperature; apply corrections according to the method.

Hydrometer Test Workflow

01
Prepare
Prepare soil with dispersant and water.

02
Mix / Transfer
Disperse the mixture and transfer to a cylinder.

03
Read / Record
Take timed hydrometer readings.

04
Evaluate
Apply corrections and calculate distribution.

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