Soil Texture Analysis Set

LT-S0006 | Soil suspension preparation and hydrometer analysis

High-speed soil mixer • 152H hydrometer • Bouyoucos cylinder



>10,000 rpm

HIGH-SPEED SOIL MIXER

-5 / 60 g/L

152H HYDROMETER MEASURING RANGE

Specimen preparation for evaluation of sand, silt and clay fractions

LT-S0006

Photographs and Set Components

Mechanical dispersion, cylinder mixing and hydrometer readings

The Soil Texture Analysis Set combines the main equipment for soil dispersion and hydrometer-based sedimentation measurements. It includes a high-speed mixer, 152H hydrometer, Bouyoucos cylinder and stainless steel stirring rod.

HIGH-SPEED SOIL MIXER

Operates above 10,000 rpm and starts automatically when the mixing cup is positioned.

152H HYDROMETER

Used for suspension readings with a measuring range of -5 to 60 g/L.



BOUYOUCOS CYLINDER

The graduated cylinder has a capacity of 1205 mL for sedimentation measurements.

STIRRING ROD

The stainless steel rod supports homogenisation of the suspension in the cylinder.



Mixer head and specimen dispersion cup



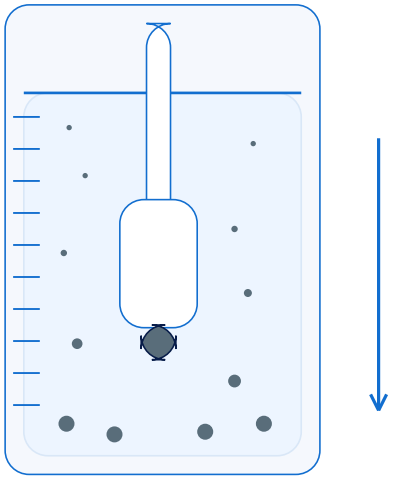
Hydrometer and cylinder stirring rod

LT-S0006

Dispersion, Sedimentation and Reading

Prepare sample • Disperse • Start timing • Take hydrometer readings

PARTICLE SETTLING IN A SOIL SUSPENSION



COARSER PARTICLES SETTLE FASTER

FINER PARTICLES REMAIN SUSPENDED LONGER

Take hydrometer readings at specified times

Evaluate particle fractions using corrected readings

REPRESENTATIVE SEDIMENTATION DIAGRAM • NOT TO SCALE

Disperse the Sample

Prepare soil, liquid and the method-specific dispersant in the mixing cup.

Prepare the Suspension

After mechanical dispersion, transfer to the cylinder. Apply the required volume and mixing.

Take Timed Readings

Monitor sedimentation time. Record hydrometer readings with suspension temperature.

The hydrometer helps track changes in the suspension as particles settle. Evaluate reading time, temperature and method-specific corrections together. Interpret particle-size results using the selected classification system.

Preparing a Homogeneous Suspension

The High Speed Soil Mixer helps disperse aggregated particles in the test liquid. The mixer starts automatically when its cup is placed in the operating position.

Transfer the prepared suspension to the Bouyoucos cylinder and homogenise with the stirring rod. Select specimen mass, liquid volume and dispersant use according to the test method.

Sand, Silt and Clay Fractions

Coarser particles settle faster while finer particles remain suspended for longer. Hydrometer readings at specified times support calculation of fine particle fractions.

Evaluate the required sieve-analysis results and hydrometer corrections together. Apply the resulting sand, silt and clay percentages to an appropriate texture classification system.

Technical Specifications and Set Contents

LT-S0006 | Mixer, hydrometer, cylinder and stirring rod

Parameter	Description / Specification
Set Product Code	LT-S0006
High Speed Soil Mixer	LT-S0007 • >10,000 rpm
Mixer Activation	Automatic start when the cup is positioned
152H Hydrometer	LT-S0005/5 • -5 to 60 g/L
Bouyoucos Cylinder	LT-S0006/1 • 1205 mL
Stirring Rod	LT-S0006/2 • Stainless steel
Set Dimensions / Approx. Weight	35 × 65 × 45 cm / 25 kg
Mixer Dimensions	24 × 20 × 50 cm
Approximate Mixer Weight	4 kg
Power Supply	220-240 V • 50-60 Hz

Record Reading Time and Suspension Temperature Together

Select specimen mass, dispersant, liquid volume and reading corrections according to the test method. Retain results with specimen identification.

Soil Texture Analysis Workflow

01
Prepare
Prepare soil and the test liquid.

02
Disperse
Create a homogeneous suspension with the mixer.

03
Measure
Take timed hydrometer readings in the cylinder.

04
Evaluate
Apply corrections and calculate particle fractions.

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