Water in Bituminous Materials Test Set

LT-AS0106 | Reflux distillation test apparatus

Thermoregulated heater • Glass condenser • Graduated receiver



10 ml

GRADUATED WATER RECEIVER CAPACITY

6 kg

SET WEIGHT

EN 1428 • ASTM D95 • ASTM D244

LT-AS0106

Photograph and Distillation Components

Condenser, graduated receiver, glass vessel and heater

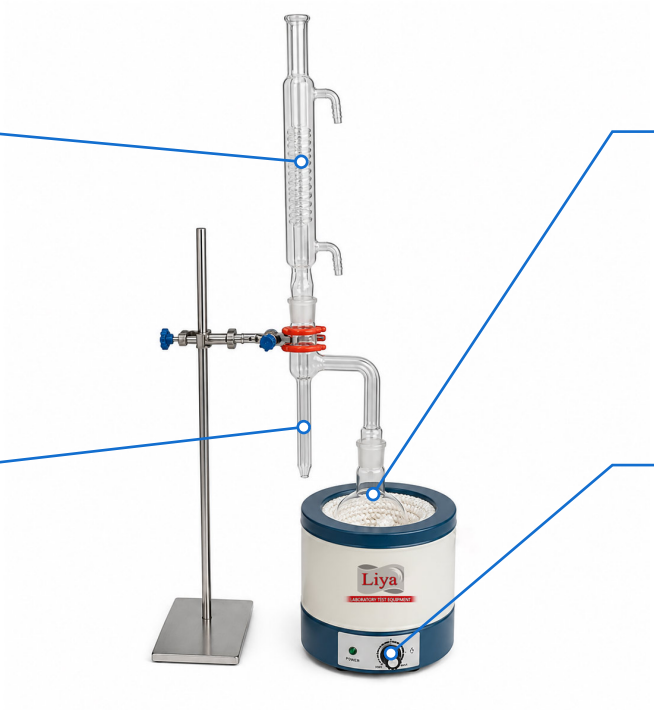
The test set separates water from bituminous materials by distillation. Heat the specimen with a suitable water-immiscible solvent; condensed water collects in the graduated receiver for volumetric reading.

GLASS CONDENSER

Condenses water and solvent vapours; liquid passes into the graduated receiver.

GRADUATED WATER RECEIVER

The 10 ml measuring section allows separated water volume to be read.



GLASS DISTILLATION VESSEL

The specimen and suitable solvent are processed in the glass vessel above the heater.

THERMOREGULATED HEATER

Electric heating supports controlled boiling and the reflux cycle.



Glass condenser and cooling-water connections



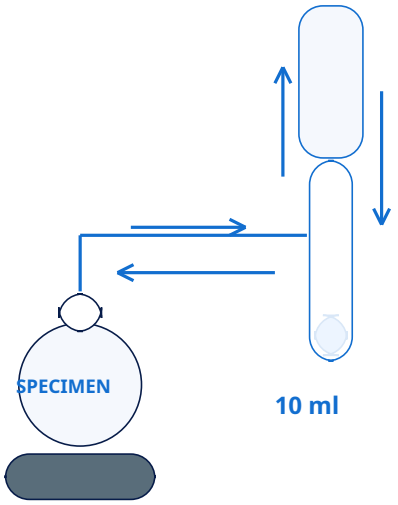
Graduated receiver and solvent return arm

LT-AS0106

Water and Solvent Separation by Reflux

Prepare • Distil • Collect water • Read volume

EVAPORATION + CONDENSATION + PHASE SEPARATION



WATER: COLLECTS IN THE GRADUATED RECEIVER

SOLVENT: RETURNS TO THE DISTILLATION VESSEL

READING: VOLUME OF SEPARATED WATER

Calculate water content according to the method

REPRESENTATIVE REFLUX DISTILLATION DIAGRAM • NOT TO SCALE

Prepare Specimen and Glassware

Measure the specimen as specified. Add solvent and check glass and water connections.

Distil and Condense

Apply controlled heating. Condense vapour and monitor water accumulation in the receiver.

Read and Record Volume

Complete the test as specified. Record separated water volume and specimen quantity.

Heating carries water and solvent vapours to the condenser. The condensate separates into phases in the receiver: water remains in the measuring section while solvent returns to the glass vessel. Convert collected volume to water content using specimen quantity and the method calculation.

Specimen, Solvent and Water Reading

Choose water-immiscible solvent and specimen quantity according to the method. Keep glassware clean and monitor separation of condensed water in the receiver.

Read water volume under the specified conditions. Do not report volume alone as a percentage; use specimen quantity and the required calculation steps.

Select the Material and Test Method

ASTM D95 addresses water by distillation in bituminous and petroleum materials; EN 1428 addresses water in bituminous emulsions. ASTM D244 and AASHTO T55 / T59 applications also depend on the material.

Check cooling water and connections. Handle solvent under suitable local exhaust and separate glassware only after the system cools.

Technical Specifications and Set Components

LT-AS0106 | Distillation and direct water-volume measurement

Technical Feature / Component	Value / Description
Product Code	LT-AS0106
Water Receiver	10 ml • Graduated glass receiver
External Dimensions	20 × 20 × 45 cm
Weight	6 kg
Heating	Thermoregulated electric heater
Distillation Vessel	Glass specimen / solvent vessel
Condenser	Glass reflux condenser
Solvent	Water-immiscible solvent specified by the method
Measurement	Volumetric reading of collected water
Test Principle	Distillation, condensation and phase separation

Check Glass Connections and Cooling Water

Prepare specimen and solvent as specified. Check glass connections and cooling water; record water volume together with specimen quantity at the end of distillation.

From Bituminous Specimen to Water Content

01
Prepare
Measure specimen and add suitable solvent.

02
Distil
Maintain controlled heating and condensation.

03
Collect / Read
Read separated water volume in the receiver.

04
Calculate
Use specimen quantity and the method calculation.

Product Page | liyatest.com.tr/en/urun/water-in-bituminous-materials-test-set/