Automatic Bitumen Penetrometer Test Set

LT-AS0035 | Consistency assessment of bituminous binders

Joystick positioning • Automatic test cycle • Digital result



Automatic

TEST CYCLE

24 kg

INSTRUMENT WEIGHT

EN 1426 • ASTM D5 • AASHTO T49

LT-AS0035

Photographs and Measuring Components

Needle mechanism, optical observation, display and joystick

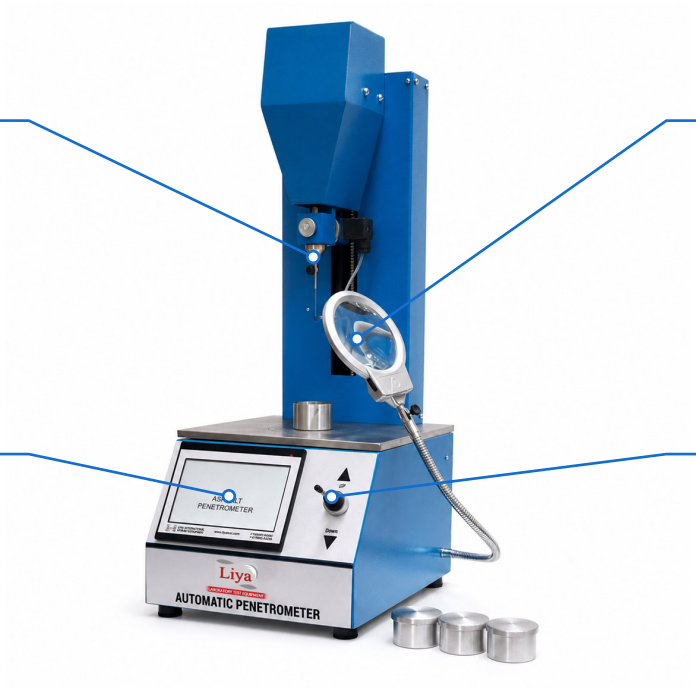
The LT-AS0035 measures the penetration depth of a standard needle in a bituminous specimen. Electric positioning and an automatic test cycle support comparison of samples under defined conditions.

NEEDLE MECHANISM

The removable needle holder supports cleaning and checks for weight calibration.

LED AND MAGNIFIER

Improve visibility of the needle tip and specimen surface.



DIGITAL DISPLAY

Set the test duration and read the penetration result digitally at the end of the cycle.

JOYSTICK CONTROL

The electric movement system provides controlled needle approach to the specimen.



Needle holder and optical observation assembly



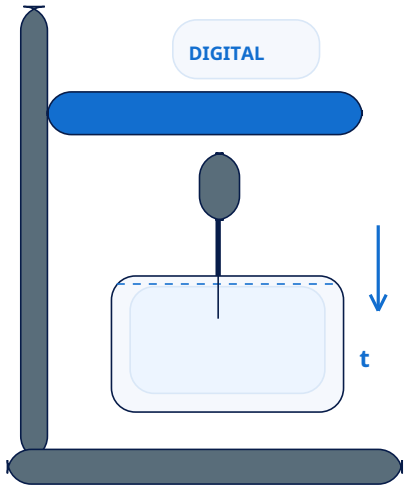
Digital control display and positioning joystick

LT-AS0035

Automatic Cycle and Penetration Depth

Position • Reset • Release • Read the result

NEEDLE + SPECIMEN + ELECTRONIC MEASUREMENT



MEASUREMENT: NEEDLE PENETRATION DEPTH

DURATION: SET DIGITALLY

START: NEEDLE TIP AT THE SPECIMEN SURFACE

Record the result together with test conditions

REPRESENTATIVE NEEDLE PENETRATION DIAGRAM • NOT TO SCALE

Position at the Surface

Approach with the joystick. Check surface contact using the magnifier and LED light.

Start the Automatic Cycle

The measurement resets; the mechanism is released for the selected duration.

Read the Digital Result

The mechanism is raised at the end of the test. Record the displayed penetration value.

Penetration is the needle depth reached under defined load, time and temperature conditions. During testing, the electronic measuring system is separated from the moving mechanism to reduce additional friction. The result is used to assess binder consistency.

Specimen and Test Conditions

Prepare the specimen and container according to the applicable method. Check needle, load, temperature and duration together; confirm surface contact before the test.

Condition the specimen at the required temperature. Record conditions for each measurement and compare repeated readings using the standard's evaluation rules.

Electronic Measurement and Calibration

A pulse-type electronic system measures penetration depth. Separating the measuring arrangement from the moving mechanism during testing reduces additional friction that could affect penetration.

Keep the removable needle holder clean. Perform weight calibration and routine checks according to the maintenance schedule; verify the starting position between tests.

LT-AS0035

Technical Specifications and Test Workflow

LT-AS0035 | Automatic needle penetration and digital evaluation

Technical Specification	Value / Description
Product Code	LT-AS0035
Test Type	Needle penetration of bitumen and binders
Needle Positioning	Joystick-controlled electric movement
Observation Support	Magnifying glass • LED illumination
Starting Operation	Automatic reset before each test
Test Duration	Adjustable through the digital control unit
Measurement System	Pulse-type electronic measurement • Digital result
Needle Holder	Removable • Weight calibration check
External Dimensions / Weight	270 × 480 × 750 mm • 24 kg
Relevant Methods	EN 1426 • ASTM D5 • AASHTO T49

Report Penetration Together with Test Conditions

Record specimen identification, test temperature, load, duration and penetration result together. Evaluate repeated measurements using the applicable method's acceptance and reporting rules.

Needle Penetration Workflow

01
Prepare
Prepare specimen and test conditions.

02
Position
Bring the needle tip to the specimen surface.

03
Start
Run the automatic cycle for the set duration.

04
Record
Report the digital result and conditions.

Product Page | liyatest.com.tr/en/urun/automatic-bitumen-penetrometer-test-set/