

## DATA SHEET

# Asphalt Binder Analyzer by Ignition Method



Asphalt binder analyzer by ignition method

## General description

The Asphalt binder analyzer consists essentially of a high precision apparatus combining a ignition oven to a continuous weighing system to monitor the loss of weight of the asphalt sample and to automatically determine, at the end of the test, the binder content and percentage. An independently controlled auxiliary afterburner chamber significantly reduces the furnace emissions.

The Analyzer is supplied complete with double sample basket/safety cover, extraction fork and 3 meters of metal exhaust pipe.

## Main features

- Full automatic test cycle with simultaneous display of all test parameters, including weight loss and %
- High efficiency heating system with additional afterburner for complete combustion of exhaust fumes, conforming to CE prescriptions
- PID closed loop temperature control
- Built in weighing system
- Test time reduced to 30-40 minutes
- Test performance menu comprising the simultaneous display of all test data
- Internal database, up to 100 tests. Each test can be displayed and printed or sent to PC by the RS 232 port
- High quality stainless steel internal chamber

## Standards

- EN 12697-39
- ASTM D6307
- AASHTO TP53
- AASHTO T308

## Specifications

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### Oven and afterburner

Highly efficient heating system with afterburner for total combustion of fumes to minimize emissions within CE requirements

No need of filter or hoods = low maintenance costs

Sample size up to 4500 g for a more representative test result

Max. power rating: 10 kW

Holding power during the test: 3.5 kW

Supplied complete with double sample tray, fork to handle the pan, cooling cage and 3 m of exhaust ducting

### Hardware

Large permanent memory to store test results

On-board 40-column serial printer

Weighing system: 10.000 g cap., 0.1 g resolution,  $\pm 0.1$  g repeatability

Closed-loop PID thermo-regulation for both oven and afterburner

240x128 pixel large graphic display

RS232 output for PC connection

### Firmware

Language selection

Clock/calendar system

Bi-directional real-time communication with the weighing system

Test setting menu, complete with physical and descriptive sample parameters

Calibration menu for temperature and weight

Optional manual control of test performance

Test performance menu with simultaneous display of all the test data

Internal database for up to 100 tests. Each test can be sent to PC, displayed, printed or deleted

Possibility to connect an external balance for automatic weight input (see accessories)

### Safety features

Automatic door lock during the test, even if the power is interrupted

Door closure is automatically monitored before the test starts

### Overall dimensions:

Width: 640 mm

Depth: 960 mm

Height (without external pipe): 960 mm

Height (with external pipe): 1060 mm

### Inner dimensions:

Width: 400 mm

Depth: 460 mm

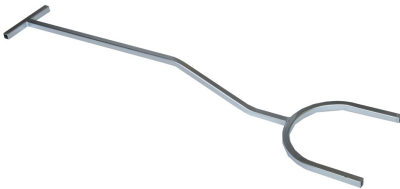
Height: 300 mm

**Weight approx.:** 155 kg (without accessories)

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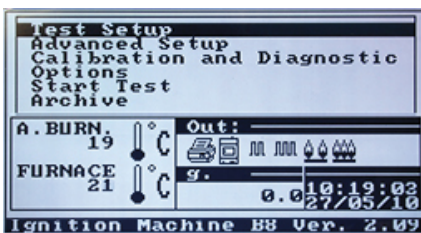
Double sample basket. Supplied with the Firebit analyzer



Extraction fork (supplied with the analyzer)



Exhaust pipe (supplied with the binder analyzer), metal stand and face shield (accessories)



Asphalt binder analyzer - Test setup

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```
*****
Controls
Ignition Machine 80008
*****
11/04/13 11:36:11
Record n. 005
ID Test: 000000000
Operator: OPERATURE1
*****
Tray weight: 3710.0g
Sample wt.: 2099.7g
Combined wt: 5809.7g
*****
TEST RESULTS
Test time : 26min
Final weight 2001.1g
Weight loss: 98.6g
Z wt. loss: 4.782
Z bit.on aggr. 4.9272
Corr.Factor: 0.002
Notes :-----
*****
```

Example of printed report issued by the analyzer



Asphalt binder analyzer by ignition method

## Products

### 75-PV0008

BITUMAX, asphalt binder analyser by the ignition method. 380V, 50Hz, 3ph.

### 75-PV0008/Z

BITUMAX, asphalt binder analyser by the ignition method. 220V, 60Hz, 3ph.

## Accessories and consumables

### 75-PV0008/10

Face shield

### 75-PV0008/12

Safety cover for sample basket cooling

### 75-PV0008/14

Additional sample basket set

### 75-PV0008/2

Auxiliary top pan digital balance 10000 g cap. X 0,1 g sensitivity, to be connected via RS232 to asphalt binder analyser 75-B0008.

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230V/50-60Hz/1ph

75-PV0008/5

Metal stand