

BITUMEN - ASPHALT

B038

WHEEL TRACKING APPARATUS

STANDARDS: EN 12697-22 / BS 598:110

This test, developed in laboratory, consists in evaluating the deformation (rut) depth of a bituminous mixture subjected to cycles of passes of a loaded rubber wheel under constant and controlled temperature conditions.

To perform the test, a wheel tracking apparatus is used to simulate the effect of traffic and to measure the deformation susceptibility of the bituminous sample.

Matest wheel tracker performs the test as per procedures A and B (6 or 2 tests), clearly specified by the EN Standard.

section B



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Technical specifications

- The machine fully satisfies both EN 12697-22 and BS 598:110 Specifications.

- Travel of the table: 230 +/- 5 mm

- Table cycle frequency: adjustable 15 to 40 cycles per minute.

- Hard rubber tyred wheel having outside diameter 200 mm

- Wheel load on the sample:
700N +/-10N (EN 12697-22)
or 520N (BS 598:110)

The load is applied on the sample through a lever:

The effective load applied on the sample can be adjusted by micrometrical weights positioning.

- Continuous real time rut depth measurement (penetration of the wheel into the sample) through a linear transducer 40 mm travel by 0,01 mm accuracy.

- The test frame is made of robust aluminium alloy and it is contained in a climatic cabinet with adjustable temperature from 30 to 65°C. +/- 1.0°C

The cabinet is equipped with two doors with insulated glass for inspection

- The sample table has dimensions: 400 x 390 mm and can accept rectangular slabs of several sizes:

 - 305 x 305 mm, 50 or 100 mm high

 - 305 x 400 mm, 50 or 100 mm high

 - 200 mm dia. core samples, 50 mm high

The sample confinement frames are not included and have to be ordered separately (see accessories)

- **Matest wheel tracker accepts also samples with dimensions up to 400 x 500 mm, 180 mm high (this mould can be compacted with Matest Roller Compactor)**

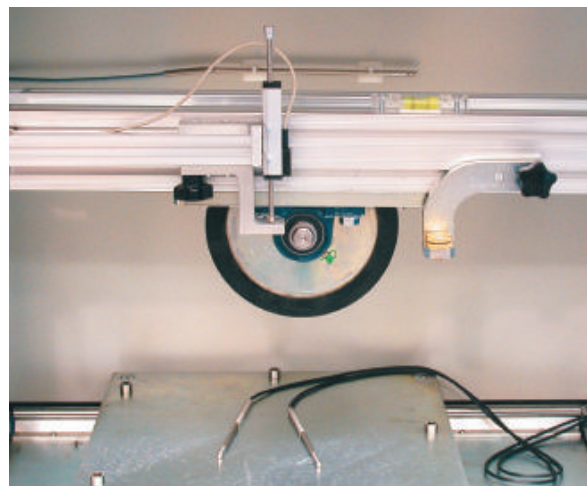
- The machine is supplied complete with adaptors for a correct mould positioning and locking

- The wheel tracker is equipped with 3 temperature probes:
1 probe, connected to the thermoregulator, for the control and adjustment of the cabinet temperature.

 - 2 probes for temperature measurement inside the specimen.



B038 with open doors



B038 detail

MATEST

Hardware

- Data acquisition and processing system fully managed by micro - processor.
- Multifunctions keyboard with encoder for easy and rapid setup
- Large graphic display 320x240 pixel.
- RS 232 port for connection to PC.

Firmware

The multilingual testing firmware allows:

- Management and automatic control of machine and test.
- Setup of all test parameters.
- Test data acquisition and processing
- Real time display of: number of cycles, rut depth, temperatures. Real time cycle rate will also be displayed when using a serial connection to PC
- Calibration menu for setting and checking all test data.
- From the control board, it is possible to select parameters, set data acquisition and processing according to EN and BS test procedures, with:
 - Identification data of the sample (slab) under test.
 - Cycle frequency.
 - Number of passes to end the test.
 - Max rut depth to end the test.
 - Sampling frequency of the rut depth.
 - Testing temperature.
 - Sample (slab) thickness.



B038 detail

The use of the B038 Wheel Tracker requires connection to a PC with Windows 98, 2000, XP minimum requirements.

Power supply: 230V 50/60Hz 1ph 2200W

Power rating of the table: 500 W

Dimensions: 1580 x 650 xh 1790 mm

Weight: 400 kg approx.

section B



B038-09 ÷ B038-18

ACCESSORIES:

- * **B038-09** MOULD
size 320 x 260 x 180 mm
- * **B038-10** MOULD
size 305 x 305 x 50 mm
- * **B038-11** MOULD
size 305 x 305 x 100 mm
- * **B038-12** MOULD
size 400 x 305 x 50 mm
- * **B038-13** MOULD
size 400 x 305 x 100 mm
- B038-14** MOULD for core sample 200 mm diameter, 50 mm high
- * **B038-18** MOULD
size 500 x 400 x 180 mm
- H009-01** PC complete with LCD monitor 17", keyboard, mouse, cables, installation.



B038 with closed doors

Notes:

* These moulds are suitable to be used also with Matest Roller Compactor.

Insert plates to reduce the thickness of the mould are available on request.

