

Method of Test For
**DETERMINING THE ASPHALT CONTENT OF ASPHALT
MIXTURE BY THE IGNITION METHOD**

DOTD Designation: TR 323

This method of test determines the asphalt content of asphalt paving mixtures and pavement samples by removing the asphalt cement by ignition in a furnace. The asphalt content is expressed as percent by mass of moisture free mixtures.

DOTD TR 323 is identical to AASHTO T 308 except for the following provisions:

A. Section 1, Scope is amended to include:

1.4 The technician may use Method A or Method B. However, Method B is considered the referee method in case of discrepancies.

B. Section 2, Reference Documents is amended to include:

DOTD TR 319 – Determination of the Moisture Content of Asphalt Concrete (Loose Mix)

All references to AASHTO T 329 in the document are replaced with DOTD TR 319.

C. Section 5, Apparatus, Section 5.3 is replaced with the following:

5.3 Oven – Capable of maintaining $110 \pm 5^{\circ}\text{C}$ ($230 \pm 9^{\circ}\text{F}$) and $150 \pm 5^{\circ}\text{C}$ ($302 \pm 9^{\circ}\text{F}$).

D. Section 6, Sampling, is amended as follows:

6.1 This section is amended to read: “Obtain samples of freshly produced asphalt mixture or roadway cores in accordance with AASHTO T 168.”

6.3 Insert the following after the first sentence: “For cores, the oven temperature may be increased to $150 \pm 5^{\circ}\text{C}$ ($302 \pm 9^{\circ}\text{F}$). Carefully separate the sample in a large, flat pan while periodically returning the pan to the oven to facilitate separation of the aggregate particles, and dry to a constant mass.”

Table 1, Mass Requirements is replaced with the following:

Table 1 Size of Test Specimen		
Nominal Maximum Aggregate Size, mm	Nominal Maximum Aggregate Size, U.S. Standard	Minimum Mass of Test Specimen, g
4.75	No. 4	1200
9.5	3/8 in.	1200
12.5	1/2 in.	1500
19.0	3/4 in.	2000
25.0	1 in.	2500
37.5	1 1/2 in.	3000

E. Section 7, Test Procedures is amended as follows:

- 7.3 This section is amended with the following: “For recycled asphalt pavement (RAP) samples, a correction factor of 0.4 is assumed for determining the asphalt content of the RAP.”
- 7.8 This section is amended with the following: “If the furnace internal scale is not present, does not function, or does not agree with the total mass recorded in Section 7.6 within +/- 5 g, use Method B.”

F. Section 8, Test Procedures

- 8.3 This section is amended with the following: “For recycled asphalt pavement (RAP) samples, a correction factor of 0.4 is assumed for determining the asphalt content of the RAP.”

G. Section 10, Report, is amended with the following:

- 10.1.8 Date
- 10.1.9 Identification of plant, mix type, JMF, JMF sequence number, and sample number

Normal Test Reporting Time is 3 hours for test specimens and 1 day for establishing correction factors.