

Division of Materials and Tests

TDOT Certification: Hot Mix Asphalt Certification Program

Course Title: Hot Mix Asphalt QA/QC Level 3: Mix Design

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Who is required to have this certification?

- Each mix design submitted by the contractor must be prepared and signed by a certified TDOT Asphalt Mix Design Technician. (TDOT Specification 407.03.C.1)
- TDOT Materials and Tests employees that will be conducting verification testing for mix designs
- In general, this specification is not required for TDOT Operations personnel

Course Description

The course covers the TDOT Asphalt Mix Design method, mix design and verification testing, and TDOT Mix related specifications.

Scope of Course

The course provides an overview of Hot Mix Asphalt, Design Submittal, volumetric calculations, and the following AASHTO and ASTM Test Methods:

- AASHTO T2 - Standard Practice for Sampling Aggregates
- AASHTO T 11- Materials Finer Than No. 200 Sieve in Mineral Aggregates by Washing
- AASHTO T 27- Sieve Analysis of Fine and Coarse Aggregates
- AASHTO T 84- Specific Gravity and Absorption of Fine Aggregate
- AASHTO T 85- Specific Gravity and Absorption of Coarse Aggregate
- AASHTO T 166- Bulk Specific Gravity of Compacted Bituminous Mixtures Using Saturated Surface-Dry Specimens
- AASHTO T 176- Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test
- AASHTO T 209- Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures
- AASHTO T 245- Resistance to Plastic Flow of Bituminous Mixtures Using Marshall Apparatus
- AASHTO T 248- Reducing Samples of Aggregate to Testing Size
- AASHTO T 304- Uncompacted Void Content of Fine Aggregate
- AASHTO T 308- Determining the Asphalt Binder Content of Hot Mix Asphalt (HMA) by the Ignition Method
- AASHTO TP 4- Standard Method for Preparing and Determining the Density of Hot Mix Asphalt (HMA) Specimens by means of the Superpave Gyrotory Compactor
- ASTM D 4867- Standard Test Method for Effect of Moisture on Asphalt Concrete Paving Mixture
- ASTM D 4791- Standard Test Method for Flat Particles, Elongated Particles, or Flat and Elongated Particles in coarse aggregate
- TDOT Test Method for Glassy Particles in Slag

- TDOT Test Method for Fractured Face Count for Marshall Mixes
- TDOT Test Method for Loss on Ignition for Surface Mixes
- TDOT Test Method for Ten Minute Boil Test for Anti-stripping Dosage Rate

Prerequisites for TDOT Employees

- Candidates for this certification should be certified asphalt plant technicians.
- Registration is open to employees of Asphalt Producers/Contractors and Materials and Tests only.

Certification Requirements

TDOT will grant a 5 year certification only to those applicants who meet the following requirements:

- Attendance of the 5-day course in its entirety
- Successful completion of a 4 hour maximum examination with a passing score of 70% or above. (The exam is OPEN book)
- Successful Lab Demonstration for Regional Materials and Tests Personnel

Recertification Requirements

- Must attend a ½ day seminar/workshop for updates of any changes to specifications and test methods since acquiring certification.
- Must re-demonstrate within one year of ½ day seminar/workshop to maintain certification.

NOTICES:

Cheating on any level of the exam WILL NOT BE TOLERATED and will result in immediate expulsion from the course and notification to superiors.

The use of cell phone calculators WILL NOT be permitted during exam.

A valid PHOTO I.D. IS REQUIRED upon check-in.