



Construction Materials Testing – Asphalt

Level III Selected General References

Candidates are permitted to bring only the following references into the test center.

<u>Title</u>	<u>Edition*</u>
ASTM Section 4 Construction Volume 04.02 Concrete and Aggregates	2016
1ASTM C535: Standard Test Method for Resistance to Degradation of Large-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine	2016
25ASTM C127: Standard Test Method for Relative Density (Specific Gravity) and Absorption of Coarse Aggregate	2015
ASTM Section 4 Construction Volume 04.03 Road and Paving Materials; Vehicle-Pavement Systems	2016
2ASTM D75/D75M: Standard Practice for Sampling Aggregates	2014
3ASTM D448: Standard Classification for Sizes of Aggregate for Road and Bridge Construction	2012
4ASTM D692/D692M: Standard Specification for Coarse Aggregate for Bituminous Paving Mixtures	2015
5ASTM D977: Standard Specification for Emulsified Asphalt	2013e1
6ASTM D979/D979M: Standard Practice for Sampling Bituminous Paving Mixtures	2015
26ASTM D1073: Standard Segregation for Fine Aggregate for Bituminous Paving Mixtures	2011
7ASTM D1074: Standard Test Method for Compressive Strength of Bituminous Mixtures	2009
8ASTM D1075: Standard Test Method for Effect of Water on Compressive Strength of Compacted Bituminous Mixtures	2011
27ASTM D1139: Standard Specification for Aggregate for Single or Multiple Bituminous Surface Treatments	2015
9ASTM D1560: Standard Test Method for Resistance to Deformation and Cohesion of Asphalt Mixtures by Means of Hveem Apparatus	2015
10ASTM D1561/D1561M: Standard Practice for Preparation of Bituminous Mixture Test Specimens by Means of California Kneading Compactor	2013
11ASTM D2041/D2041M: Standard Test Method for Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures	2011
28ASTM D2419: Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate	2014
12ASTM D2726/D2726M: Standard Test Method for Bulk Specific Gravity and Density of Non-Absorptive Compacted Bituminous Mixtures	2014
29ASTM D2950/D2950M: Standard Test Method for Density of Bituminous Concrete in Place by Nuclear Methods	2014
13ASTM D3203/D3203M: Standard Test Method for Percent Air Voids in Compacted Dense and Open Bituminous Paving Mixtures	2011
30ASTM D3549: Standard Test Method for Thickness of Height of Compacted Bituminous Paving Mixture Specimens	2011
14ASTM D3665: Standard Practice for Random Sampling of Construction Materials	2012
15ASTM D3666: Standard Specification for Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials	2013



31ASTM D3744/D3744M: Standard Test Method for Aggregate Durability Index 2011a
 16ASTM D4867/D4867M: Standard Test Method for Effect of Moisture on Asphalt Concrete Paving Mixtures 2014
 17ASTM D5581: Standard Test Method for Resistance to Plastic Flow of Bituminous Mixtures Using Marshall Apparatus (6 inch-Diameter Specimen) 2013
 32ASTM D6155: Standard Specification for Nontraditional Coarse Aggregates for Bituminous Paving Mixtures 2015

18Hot Mix Asphalt Paving Handbook (2013), Federal Aviation Administration (FAA)

19MS-4 The Asphalt Handbook, Asphalt Institute (AI)

***The test questions are based on the standard editions listed above; therefore, candidates are strongly urged to bring these editions to the exam. Note: Test questions are based on the standard editions listed above; therefore, candidates are strongly urged to bring these published year editions to the exam. Note: candidates may bring older or newer editions—instead of the editions listed above—at their own risk. Exam comments that are made based on other published edition years, will not be reviewed until the next maintenance cycle. Candidates are responsible for reviewing the content outline and bringing in allowable printed references that are applicable to what is being tested. Acceptable references may be copied in whole or part.**

Note: References must be bound or secured in a three-ring binder with a title page (example provided on the main program page). They may have highlighted text and self-adhesive index tabs or dividers, however they must be permanently attached. No other additions or modifications to the references are allowed. Handwritten notes are NOT permitted. References with loose paper or pages and freestanding tabs (e.g., repositionable sticky notes/tabs of any kind) are not permitted into the testing centers.

During the exam, the following titles will be available to candidates **on-screen only**:

<u>Title</u>	<u>Edition*</u>
20AASHTO R 18: Standard Recommended Practice for Establishing and Implementing a Quality Management System for Construction Materials Testing Laboratories American Association of State Highway and Transportation Officials	2017
21AASHTO T 245: Standard Method of Test Fore Resistance to Plastic Flow of Bituminous Mixtures Using Marshall Apparatus	2015

*Test questions are based on the editions listed above. These editions will be available to candidates during the exam in PDF format.

In addition to the references listed above, the following publications can provide some of the job knowledge required by a construction materials testing technician. While these books may help prepare for the exam, they are NOT permitted in the test center.

22Inspector’s Manual for Hot Mixed Asphalt and Portland Cement Concrete Pavement Construction (2013), U.S. Army Corps of Engineers, Transportation Systems Center
 23MS-2 Asphalt Mix Design Methods, 6th edition, Asphalt Institute (AI)
 24MS-22 Construction of Hot Mix Asphalt Pavements, 2nd edition, Asphalt Institute (AI)

➤ This listing is not intended to be complete or representative.