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**Standard Method of Test for**

**Density of In-Place Hot Mix Asphalt  
(HMA) Pavement by Electronic  
Surface Contact Devices**

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**AASHTO Designation: TP 68-04 (2010)<sup>1</sup>**



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## Standard Method of Test for

# Density of In-Place Hot Mix Asphalt (HMA) Pavement by Electronic Surface Contact Devices



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## INTRODUCTION

This test method describes the procedures for determining the in-place density of hot mix asphalt (HMA) by an electronic surface contact device.

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### 1. SCOPE

- 1.1. This method covers the in-place determination of the total density and relative compaction of HMA pavements by measuring changes in the electromagnetic field resulting from the compaction process.
- 1.2. The equipment referenced in this method is a surface contact device that is relatively unaffected by the surface moisture and surface variances in temperature typically encountered during HMA paving operations. If needed, it should include circuitry to measure/compensate for moisture and temperature variances during the material compaction process.
- 1.3. *This procedure does not purport to address all of the safety concerns associated with its use. It is the responsibility of the user of this procedure to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

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### 2. REFERENCED DOCUMENTS

- 2.1. *AASHTO Standard:*
  - T 166, Bulk Specific Gravity of Compacted Hot Mix Asphalt (HMA) Using Saturated Surface-Dry Specimens

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### 3. SIGNIFICANCE

- 3.1. The test method described is useful as a rapid nondestructive technique for determining the in-place density and relative compaction of compacted HMA mixtures.
- 3.2. The density results obtained by this test method may be applied using three method applications, Method A—Relative, Method B—Screed Calibration, and Method C—Core Calibration. Method C is the most accurate and requires a correlation with a known density sample of the material being measured.