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## Standard Practice for Estimating Degree of Particle Coating of Bituminous-Aggregate Mixtures<sup>1</sup>

This standard is issued under the fixed designation D 2489/D 2489M; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

### 1. Scope \*

1.1 This practice provides an estimate of the degree of particle coating in a bituminous-aggregate mixture on the basis of the percentage of coarse particles classified as being completely coated.

~~1.2 The values stated in SI units are regarded as being standard.~~

1.2 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard.

1.3 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

### 2. Referenced Documents

2.1 *ASTM Standards:*<sup>2</sup>

D 8 Terminology Relating to Materials for Roads and Pavements

D 979 Practice for Sampling Bituminous Paving Mixtures

~~D 995 Specification for Mixing Plants for Hot-Mixed, Hot-Laid Bituminous Paving Mixtures<sup>2</sup>~~

D 3515 Specification for Hot-Mixed, Hot-Laid Bituminous Paving Mixtures<sup>2</sup> Specification for Mixing Plants for Hot-Mixed, Hot-Laid Bituminous Paving Mixtures

D 3665 Practice for Random Sampling of Construction Materials

D 4215 Specification for Cold-Mixed, Cold-Laid Bituminous Paving Mixtures

E 11 Specification for Wire Cloth and Sieves for Testing Purposes

### 3. Terminology

3.1 For definitions of terms, see Terminology D 8.

3.2 For descriptions of mixing plant terms, see Mixing Plants, Specification D 995.

### 4. Significance and Use

~~4.1 The~~4.1 The procedure in this practice for estimating the percentage of coated particles after varying mixing times is used to establish the least mixing time required to produce satisfactory coating for a given set of conditions. This procedure can also be used to sample cold mixtures from stockpiles to determine that satisfactory coating has been retained in the stockpile.

4.2 This procedure is used with hot-mixed, hot-laid bituminous paving mixtures ~~such as specified in Specification D 3515~~ or with cold-mixed, cold-laid bituminous paving mixtures such as specified in Specification D 4215.

NOTE 1—Even when a paving mixture complies with the “percent of coated particles” that may be specified, there is no assurance that the asphalt cement is uniformly distributed throughout the mixture.

4.3 This practice should not be used for acceptance/rejection by owner agencies.

### 5. Apparatus

5.1 *Sieves*, 9.5 mm (~~{3/8 in.}~~in.) and 4.75 mm (~~(No. 4)~~[No. 4]). The sieves shall conform to Specification E 11.

<sup>1</sup> This practice is under the jurisdiction of ASTM Committee D04 on Road and Paving Materials and is the direct responsibility of Subcommittee D04.23 on Plant-Mixed Bituminous Surfaces and Bases.

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<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* Vol 04.03 volume information, refer to the standard’s Document Summary page on the ASTM website.

\*A Summary of Changes section appears at the end of this standard.