



Standard Specification for Fine Aggregate for Bituminous Paving Mixtures¹

This standard is issued under the fixed designation D 1073; 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 (ε) indicates an editorial change since the last revision or reapproval.

This standard has been approved for use by agencies of the Department of Defense.

1. Scope

1.1 This specification covers fine aggregate for use in bituminous paving mixtures.

1.2 This specification is intended to describe material from a single supplier. When material from two or more suppliers is to be blended to produce a grading to meet requirements as described in Specification D 3515 or other specifications for bituminous paving mixtures, the grading requirements of Table 1 of this specification need not apply.

NOTE 1—When obtaining materials from two or more suppliers that do not meet the gradings in Table 1, and that are to be blended, it is recommended that the specifying or the ordering agency specify the alternative gradings to be supplied.

1.3 The values stated in SI units are to be regarded as standard. Inch-pound units, shown in parentheses, are for information only.

1.4 The text of this standard references notes and footnotes which provide explanatory material. These notes and footnotes (excluding those in tables and figures) shall not be considered as requirements of the standard.

2. Referenced Documents

2.1 ASTM Standards:

- C 88 Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate²
- C 117 Test Method for Material Finer Than 75-μm (No. 200) Sieve in Mineral Aggregates by Washing²
- C 125 Terminology Relating to Concrete and Concrete Aggregates²
- C 136 Test Method for Sieve Analysis of Fine and Coarse Aggregates²
- C 294 Descriptive Nomenclature for Constituents of Concrete Aggregates²
- D 8 Terminology Relating to Materials for Roads and Pavements³
- D 75 Practice for Sampling Aggregates³

D 3515 Specification for Hot-Mixed, Hot-Laid Bituminous Paving Mixtures³

D 3665 Practice for Random Sampling of Construction Materials³

D 4318 Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils⁴

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications⁵

3. Terminology

3.1 Definitions:

3.1.1 For defining aggregate types, see Descriptive Nomenclature C 294, and Terminology D 8 and C 125.

3.1.2 *expanded shale, n; expanded clay, n; expanded slate, n;* the product resulting from the expanding of selected materials (shale, clay, or slate) in a rotary kiln at temperatures over 1000°C.

4. Ordering Information

4.1 Orders for material under this specification shall include the following:

- 4.1.1 This specification designation including year,
- 4.1.2 Grading (6.2 and Table 1), or alternative grading designated by the purchaser,
- 4.1.3 Supplementary requirement for sulfate soundness, if required, including salt to be used (See S1), and
- 4.1.4 Any exceptions or additions to this specification.

5. General Characteristics

5.1 Fine aggregate is aggregate passing the 9.5-mm (3/8-in.) sieve and almost entirely passing the 4.75-mm (No. 4) sieve. It shall consist of natural sand; or of manufactured fine aggregate from crushed stone, crushed blast-furnace slag, or crushed gravel; or crushed or uncrushed expanded shale, expanded clay, or expanded slate; or combinations thereof. It shall consist of hard, tough grains, free of injurious amounts of clay, loam, or other deleterious substances.

6. Physical Properties

6.1 To determine conformance to this specification, each value for grading (and sulfate soundness, when required) shall

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² *Annual Book of ASTM Standards*, Vol 04.02.

³ *Annual Book of ASTM Standards*, Vol 04.03.

⁴ *Annual Book of ASTM Standards*, Vol 04.08.

⁵ *Annual Book of ASTM Standards*, Vol 14.02.