Designation: D242/D242M – 19

Standard Specification for Mineral Filler for Asphalt Mixtures[1]

This standard is issued under the fixed designation D242/D242M; 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.

1. Scope

1.1 This specification covers mineral filler added as a separate ingredient for use in asphalt mixtures.

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 nonconformance with the standard.

1.3 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.

1.4 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

C50/C50M Practice for Sampling, Sample Preparation, Packaging, and Marking of Lime and Limestone Products

C183/C183M Practice for Sampling and the Amount of Testing of Hydraulic Cement

C311/C311M Test Methods for Sampling and Testing Fly Ash or Natural Pozzolans for Use in Portland-Cement Concrete

D8 Terminology Relating to Materials for Roads and Pavements

D546 Test Method for Sieve Analysis of Mineral Filler for Asphalt Paving Mixtures

D4318 Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils

3. Terminology

3.1 For definitions of terms used in this standard, see Terminology D8.

4. General Description

4.1 Mineral filler shall consist of finely divided mineral matter such as rock dust, slag dust, hydrated lime, hydraulic cement, fly ash, loess, or other suitable mineral matter. At the time of use, it shall be sufficiently dry to flow freely and essentially free from agglomerations.

5. Physical Requirements

5.1 Mineral filler shall be graded within the following limits:

Sieve	Percent Passing (by Mass)
1.18 mm (No. 16)	100
600 µm (No. 30)	97 to 100
300 µm (No. 50)	95 to 100
75 µm (No. 200)	70 to 100

5.2 Mineral filler prepared from rock dust, slag dust, loess, and similar materials shall be essentially free from organic impurities and have a plasticity index not greater than 4.

NOTE 1—Plasticity index limits are not appropriate for hydrated lime and hydraulic cement.

6. Methods of Sampling and Testing

6.1 Sample the mineral filler according to Practice C50/C50M or C183/C183M, or Test Methods C311/C311M, whichever is most appropriate for the material being sampled, except as noted in 6.1.1.

6.1.1 Obtain samples at random intervals not to exceed each 300 tons of material as delivered.

6.2 The minimum size of field samples shall be 5.0 kg [11 lb]. Reduce the field sample to a minimum size of 2.5 kg [5 lb] for testing.

6.3 Determine the grading of the material by Test Method D546.

6.4 Determine the plasticity index by Test Methods D4318.

[1] This specification is under the jurisdiction of ASTM Committee D04 on Road and Paving Materials and is the direct responsibility of Subcommittee D04.50 on Aggregate Specifications.

Current edition approved May 1, 2019. Published May 2019. Originally approved in 1926. Last previous edition approved in 2014 as D242/D242M – 09 (2014). DOI: 10.1520/D0242_D0242M-19.

[2] For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.