



Standard Test Method for Determining the Workability of Asphalt Cold Mix Patching Material¹

This standard is issued under the fixed designation D 6704; 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 test method provides a procedure for determination of the workability of asphalt cold mix patching materials.

1.2 This test method is applicable to asphalt cold mix patching materials that will be stockpiled or packaged in containers, subjected to different climatic conditions, and later used for roadway patching operations.

1.3 Precision and bias for this test method has not been determined, therefore, this test method should not be used for purchasing purposes.

1.4 This procedure may involve hazardous materials, operations, and equipment. *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:

C 702 Practice for Reducing Samples of Aggregate to Testing Size²

D 8 Terminology Relating to Materials for Roads and Pavements³

D 75 Practice for Sampling Aggregates³

D 3665 Practice for Random Sampling of Construction Materials³

D 4753 Specification for Evaluating, Selecting, and Specifying Balances and Scales for Use in Testing Soil, Rock, and Related Construction Material⁴

D 5581 Test Method for Resistance to Plastic Flow of Bituminous Mixtures Using Marshall Apparatus (6-inch Diameter Specimen)³

E 1 Specification for ASTM Thermometers⁵

¹ This test method is under the jurisdiction of ASTM Committee D04 on Road and Paving Materials and is the direct responsibility of Subcommittee D04.27 on Cold Mix Asphalts.

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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 14.03.

3. Terminology

3.1 Definition of Term Specific to This Standard:

3.1.1 *workability*—the average maximum resistance to penetration by a designated penetrometer into a compacted asphalt cold mix that is confined in a designated box.

3.2 Definitions for other terms used in this test method may be found in Terminology D 8 or a standard unabridged dictionary.

4. Summary of Test Method

4.1 This test method is used to determine the relative value for workability of an asphalt cold mix patching material to be used under different climatic conditions.

4.2 Cold patching samples are obtained from the asphalt cold mix stockpile or removed from its container, cooled to a specified temperature, and measured for workability.

5. Significance and Use

5.1 This test method may be used to generate information concerning the potential characteristics of handling, placing, compaction, and performance of an asphalt cold mix.

5.2 Workability is one of the main factors that influences the suitability and ultimately the performance of asphalt cold mix suitability for use as a roadway patching material.

5.3 This test method is applicable to asphalt cold mixes manufactured with modified or unmodified asphalt emulsions, cutback asphalts, or combinations thereof.

6. Interferences

6.1 Differences in the aggregate gradation, size, shape, and surface properties, and the residual asphalt binder can significantly affect the workability test method values.

6.2 Procedure variances can affect the values obtained. Careful adherence to this test method will decrease the likelihood of differences caused by departures from procedure parameters.

7. Apparatus

7.1 *Freezer*, capable of maintaining a temperature of $-10 \pm 1^{\circ}\text{C}$.