



Designation: C 461 – 81 (Reapproved 2003)

## Standard Test Methods for Mastics and Coatings Used With Thermal Insulation<sup>1</sup>

This standard is issued under the fixed designation C 461; 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 These test methods cover procedures for sampling and testing mastics and coatings for use as weather and vapor barrier finishes on thermal insulations and for other accessory use.

1.2 The values stated in inch-pound units are to be regarded as the standard. The metric equivalents of inch-pound units may be approximate.

1.3 The test methods appear in the following order:

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Uniformity and Storage Stability	5
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Density and Weight per Gallon	7
Consistency	8
Solids Content	9
Content of Volatiles and Coverage of Mastics and Coatings	10
Build	11
Drying Time	12
Flash Point	13

1.4 *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 168 Terminology Relating to Thermal Insulation<sup>2</sup>
- C 419 Practice for Making and Curing Test Specimens of Mastic Thermal Insulation Coatings<sup>2</sup>
- D 56 Test Method for Flash Point by Tag Closed Tester<sup>3</sup>
- D 71 Test Method for Relative Density of Solid Pitch and Asphalt (Displacement Method)<sup>3</sup>
- D 93 Test Methods for Flash Point by Pensky-Martens Closed Cup Tester<sup>3</sup>

<sup>1</sup> These test methods are under the jurisdiction of ASTM Committee C16 on Thermal Insulation and are the direct responsibility of Subcommittee C16.33 on Insulation Finishes and Moisture.

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<sup>2</sup> *Annual Book of ASTM Standards*, Vol 04.06.

<sup>3</sup> *Annual Book of ASTM Standards*, Vol 05.01.

- D 140 Practice for Sampling Bituminous Materials<sup>4</sup>
- D 217 Test Method for Cone Penetration of Lubricating Grease<sup>3</sup>
- D 2196 Test Methods for Rheological Properties of Non-Newtonian Materials By Rotational (Brookfield type) Viscometer<sup>5</sup>
- D 3278 Test Methods for Flash Point of Liquids by Small Scale Closed-Cup Apparatus<sup>5</sup>

### 3. Terminology

3.1 *Definitions*—For definitions of terms used in these test methods, see Terminology C 168.

### 4. Sampling

4.1 Prior to opening or sampling, or both, any mastic or coating, its Material Safety Data Sheet (MSDS) should be reviewed to ensure appropriate precautions or personal protective equipment, or both, are utilized.

4.2 Take the samples for laboratory examination from the original containers immediately after stirring to a uniform condition. Determine the number of containers sampled as required to represent a shipment in accordance with Practice D 140. Restir the composite sample immediately before taking out portions for individual tests.

### 5. Uniformity and Storage Stability

5.1 Open the original containers and examine them for uniformity of contents. Record the degree of separation, if any, into portions of appreciably different consistency, such as thick or thin layers, sedimentation or coagulation, etc., also of difficulty encountered in stirring to a uniform condition.

5.2 Examine the contents of a full container of not less than 1 qt (1 L) that has stood undisturbed for 48 h. Make notation of any separation of solvent or water, coagulation, or settlement of suspended matter, that cannot be overcome by moderate agitation.

5.3 Additionally, if required, examine and report the condition in the container after 3 months' storage, examining for uniformity in accordance with 5.1.

<sup>4</sup> *Annual Book of ASTM Standards*, Vol 04.03.

<sup>5</sup> *Annual Book of ASTM Standards*, Vol 06.01.