



Designation: D5360 – 09

# Standard Practice for Design and Construction of Bituminous Surface Treatments<sup>1</sup>

This standard is issued under the fixed designation D5360; 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 covers the design and construction of bituminous surface treatments. It is a guide and should be used as such. End-use specifications should be adopted to conform to job and user requirements.

1.2 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered 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.* For specific precautions see Section 9.

## 2. Referenced Documents

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

- D140 Practice for Sampling Bituminous Materials
- D448 Classification for Sizes of Aggregate for Road and Bridge Construction
- D490 Specification for Road Tar
- D946 Specification for Penetration-Graded Asphalt Cement for Use in Pavement Construction
- D977 Specification for Emulsified Asphalt
- D1139 Specification for Aggregate for Single or Multiple Bituminous Surface Treatments
- D1369 Practice for Quantities of Materials for Bituminous Surface Treatments
- D2027 Specification for Cutback Asphalt (Medium-Curing Type)
- D2028 Specification for Cutback Asphalt (Rapid-Curing Type)

<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 D04.24 on Bituminous Surface Treatments.

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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* volume information, refer to the standard's Document Summary page on the ASTM website.

- D2397 Specification for Cationic Emulsified Asphalt
- D2399 Practice for Selection of Cutback Asphalts
- D2995 Practice for Estimating Application Rate of Bituminous Distributors
- D3381 Specification for Viscosity-Graded Asphalt Cement for Use in Pavement Construction
- D3628 Practice for Selection and Use of Emulsified Asphalts
- D5624 Test Method for Determining the Transverse-Aggregate Spread Rate for Surface Treatment Applications
- D6114 Specification for Asphalt-Rubber Binder
- D6154 Specification for Chemically Modified Asphalt Cement for Use in Pavement Construction
- D6373 Specification for Performance Graded Asphalt Binder

## 3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

3.1.1 *multiple surface treatment*—the bituminous surface produced by the repeat application of bitumen and aggregate a second or even a third time, with the aggregate size usually becoming smaller with each application. Each layer is immediately rolled, preferably with a pneumatic-tired roller.

3.1.2 *single surface treatment*—the bituminous surface produced by the application of bitumen to a prepared surface followed at once by an aggregate cover. The surface is immediately rolled, preferably with a pneumatic-tired roller.

3.1.3 *surface treatment*—an application of bituminous material followed by a layer of mineral aggregate. Multiple applications of bituminous material and mineral aggregate may be used.

## 4. Significance and Use

4.1 This practice is to be used as a guide and not a specification.

## 5. Ordering Information

5.1 Orders for seal coat and surface treatment materials under this guide shall include the following information:

- 5.1.1 Type of bitumen (asphalt cement, emulsified asphalt, cutback asphalt, road tar) specification designation,
- 5.1.2 Grade of bitumen,