



Designation: D 5360 – 98

Standard Practice for Design and Construction of Bituminous Surface Treatments¹

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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 given in inch-pound units are to be regarded as the 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:

- C 29/C29M Test Method for Unit Weight and Voids in Aggregate²
- C 88 Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate²
- C 127 Test Method for Specific Gravity and Absorption of Coarse Aggregate²
- C 128 Test Method for Specific Gravity and Absorption of Fine Aggregate²
- C 131 Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine²
- C 136 Test Method for Sieve Analysis of Fine and Coarse Aggregates²
- D 75 Practice for Sampling Aggregates³
- D 140 Practice for Sampling Bituminous Materials³
- D 448 Classification for Sizes of Aggregate for Road and Bridge Construction³

D 490 Specification for Road Tar³

D 946 Specification for Penetration-Graded Asphalt Cement for Use in Pavement Construction³

D 977 Specification for Emulsified Asphalt³

D 1139 Specification for Aggregate for Single or Multiple Bituminous Surface Treatments³

D 1369 Practice for Quantities of Materials for Bituminous Surface Treatments³

D 2027 Specification for Cutback Asphalt (Medium-Curing Type)³

D 2028 Specification for Cutback Asphalt (Rapid-Curing Type)³

D 2397 Specification for Cationic Emulsified Asphalt³

D 2399 Practice for Selection of Cutback Asphalts³

D 2995 Practice for Determining Application Rate of Bituminous Distributors³

D 3381 Specification for Viscosity-Graded Asphalt Cement for Use in Pavement Construction³

D 3628 Practice for Selection and Use of Emulsified Asphalts³

D 5624 Test Method for Determining the Transverse-Aggregate Spread Rate for Surface Treatment Applications³

3. Terminology

3.1 Definitions of Terms Specific to This Standard:

3.1.1 *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.

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 *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.

¹ This practice is under the jurisdiction of ASTM Committee D-4 on Road and Paving Materials and is the direct responsibility of Subcommittee D04.24 on Bituminous Surface Treatments.

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

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