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American Association State  
Highway and Transportation Officials Standard  
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# Standard Specification for Coal Tar Primer Used in Roofing, Dampproofing, and Waterproofing<sup>1</sup>

This standard is issued under the fixed designation D 43; 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.

*This standard has been approved for use by agencies of the Department of Defense.*

## 1. Scope

1.1 This specification covers coal tar primer suitable for use with coal tar pitch in roofing, dampproofing, and waterproofing below or above ground level, for application to concrete, masonry, and coal tar surfaces.

1.2 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

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.*

## 2. Referenced Documents

### 2.1 ASTM Standards:

- D 38 Test Methods for Sampling Wood Preservatives Prior to Testing<sup>2</sup>
- D 140 Practice for Sampling Bituminous Materials<sup>3</sup>
- D 168 Test Method for Coke Residue of Creosote<sup>2</sup>
- D 246 Method for Distillation of Creosote and Creosote-Coal Tar Solutions<sup>2</sup>
- D 347 Test Method for Volume and Specific Gravity Correction Tables for Creosote and Coal Tar<sup>2</sup>
- D 367 Test Method for Xylene-Insoluble Matter in Creosote<sup>2</sup>
- D 368 Test Method for Specific Gravity of Creosote and Oil-Type Preservatives<sup>2</sup>
- D 370 Test Method for Dehydration of Oil-Type Preservatives<sup>2</sup>

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee D08 on Roofing, Waterproofing, and Bituminous Materials and is the direct responsibility of Subcommittee D08.05 on Solvent-Bearing Bituminous Compounds for Roofing and Waterproofing.

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<sup>2</sup> Annual Book of ASTM Standards, Vol 04.10.

<sup>3</sup> Annual Book of ASTM Standards, Vol 04.03.

## 3. Physical Requirements

3.1 Coal tar primer shall be a distillate of coal-gas tar or coke-oven tar and shall conform to the following requirements:

Water	not more than 1 %
Consistency at 5°C (41°F)	entirely fluid and crystal free <sup>4</sup>
Specific gravity, 38/15.5°C (100/60°F)	not less than 1.06
Matter insoluble in benzene	not more than 0.5 %
Distillation, based on water-free oil:	
Up to 210°C (410°F)	not more than 1 %
Up to 235°C (455°F)	not more than 10 %
Up to 355°C (670°F)	not less than 65 %
Coke residue	not more than 2 %

<sup>4</sup> The coal tar primer shall be rated as crystal free if no crystals are formed when 100 mL of the sample is maintained at a temperature of 5°C (41°F) for 3 h, in a 125 mL Erlenmeyer flask, with occasional stirring.

## 4. Sampling

4.1 Sample the coal tar primer in accordance with Practice D 140.

## 5. Test Methods

5.1 Determine the properties enumerated in this specification in accordance with the following methods:

5.1.1 *Water*—Test Method D 370.

5.1.2 *Specific Gravity*—Test Method D 368.

5.1.3 *Matter Insoluble in Xylene*—Test Method D 367.

5.1.4 *Distillation*—Method D 246.

5.1.5 *Coke Residue*—Test Method D 168.

5.1.6 *Volume and Specific Gravity Correction*—Volume and Specific Gravity Correction Tables D 347.

## 6. Inspection

6.1 Inspection of the material shall be agreed upon between the purchaser and the supplier.