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American Association State Highway and Transportation Officials Standard AASHTO No.: M121

Standard Specification for Coal Tar Primer Used in Roofing, Dampproofing, and Waterproofing¹

This standard is issued under the fixed designation D43/D43M; 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 U.S. 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 either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in nonconformance with 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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.
- 1.4 This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.

2. Referenced Documents

2.1 ASTM Standards:²

D140/D140M Practice for Sampling Asphalt Materials
D168 Test Method for Coke Residue of Creosote (Withdrawn 2006)³

D246 Test Method for Distillation of Creosote and Creosote-Coal Tar Solutions (Withdrawn 2006)³

D347 Tables for Volume and Specific Gravity Correction for Creosote, Creosote-Coal Tar Solution, and Coal Tar (Withdrawn 2006)³

D367 Test Method for Xylene-Insoluble Matter in Creosote (Withdrawn 2006)³

D368 Test Method for Specific Gravity of Creosote and Oil-Type Preservatives (Withdrawn 2006)³

D370 Practice for Dehydration of Oil-Type Preservatives

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 ^A
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 %

^A 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 D140/D140M.

5. Test Methods

- 5.1 Determine the properties enumerated in this specification in accordance with the following methods:
 - 5.1.1 Water—Practice D370.
 - 5.1.2 Specific Gravity—Test Method D368.
 - 5.1.3 Matter Insoluble in Xylene—Test Method D367.
 - 5.1.4 Distillation—Test Method D246.
 - 5.1.5 Coke Residue—Test Method D168.
- 5.1.6 *Volume and Specific Gravity Correction*—Volume and Specific Gravity Correction Tables D347.

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

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ The last approved version of this historical standard is referenced on www.astm.org.