
Standard Specification for Materials for Ultrathin Bonded Wearing Course

AASHTO Designation: M 346-22¹

Adopted: 2022

Technical Subcommittee: 5b, Bridge and Pavement Preservation



**American Association of State Highway and Transportation Officials
555 12th Street NW, Suite 1000
Washington, DC 20004**

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1. SCOPE

- 1.1. This standard covers the requirements for polymer-modified emulsified asphalt, performance-graded asphalt binder, mineral aggregate, mineral filler, and additives used in an ultrathin bonded wearing course. An ultrathin bonded wearing course, usually $\frac{1}{2}$ to 1 in. (12.5 to 25.4 mm) thick is placed on existing pavement surfaces using specially designed paving machines.
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2. REFERENCED STANDARDS

- 2.1. *AASHTO Standards:*
- M 17, Mineral Filler for Bituminous Paving Mixtures
 - M 295, Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete
 - M 303, Lime for Asphalt Mixtures
 - M 316, Polymer-Modified Emulsified Asphalt
 - M 320, Performance-Graded Asphalt Binder
 - M 332, Performance-Graded Asphalt Binder Using Multiple Stress Creep Recovery (MSCR) Test
 - R 108, Ultrathin Bonded Wearing Course Design
 - T 49, Penetration of Bituminous Materials
 - T 59, Emulsified Asphalts
 - T 84, Specific Gravity and Absorption of Fine Aggregate
 - T 85, Specific Gravity and Absorption of Coarse Aggregate
 - T 96, Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
 - T 104, Soundness of Aggregate by Use of Sodium Sulfate or Magnesium Sulfate
 - T 112, Clay Lumps and Friable Particles in Aggregate
 - T 176, Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test
 - T 210, Aggregate Durability Index
 - T 301, Elastic Recovery Test of Asphalt Materials by Means of a Ductilometer
 - T 304, Uncompacted Void Content of Fine Aggregate
 - T 327, Resistance of Coarse Aggregate to Degradation by Abrasion in the Micro-Deval Apparatus
 - T 331, Bulk Specific Gravity (G_{mb}) and Density of Compacted Asphalt Mixtures Using Automatic Vacuum Sealing Method