



Designation: D8531 – 23

Standard Specification for Latex-Based Pavement Sealers Containing Mineral Aggregates¹

This standard is issued under the fixed designation D8531; 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.

1. Scope

1.1 This performance specification covers mixtures of water-based latex polymer, mineral aggregates, and optional other admixtures that, when combined, create a weather-protective and aliphatic hydrocarbon-resistant coating over asphalt and other pavements. There are two variations of the coating (Class 1 and Class 2): Class 1, a standard version—typically black but can be other colors, and Class 2, designed to be a solar reflective version.

1.2 *Units*—The values stated in SI units are to be regarded as the standard. No other units of measurement are included in this standard.

1.3 The text of this standard references notes and footnotes which provide explanatory material. These notes and footnotes (excluding those in tables and figures) shall not be considered as requirements for the standard.

1.4 *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.*

1.5 *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

D8 Terminology Relating to Materials for Roads and Pavements

¹ This specification is under the jurisdiction of ASTM Committee D04 on Road and Paving Materials and is the direct responsibility of Subcommittee D04.99 on Sustainable Asphalt Pavement Materials and Construction.

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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.

D522/D522M Test Methods for Mandrel Bend Test of Attached Organic Coatings

D562 Test Method for Consistency of Paints Measuring Krebs Unit (KU) Viscosity Using a Stormer-Type Viscometer

D1644 Test Methods for Nonvolatile Content of Varnishes

D2196 Test Methods for Rheological Properties of Non-Newtonian Materials by Rotational Viscometer

D2240 Test Method for Rubber Property—Durometer Hardness

D2939 Test Methods for Emulsified Bitumens Used as Protective Coatings (Withdrawn 2012)³

D6886 Test Method for Determination of the Weight Percent Individual Volatile Organic Compounds in Waterborne Air-Dry Coatings by Gas Chromatography

E1980 Practice for Calculating Solar Reflectance Index of Horizontal and Low-Sloped Opaque Surfaces

3. Terminology

3.1 For definitions of terms used in this specification, see Terminology **D8**.

4. Packaging and Materials

4.1 Shipping containers shall be marked with the name of the material, the stock number, lot number, ASTM designation number and year of issue, quantity therein, manufacture date, and name of manufacturer or supplier.

5. Materials and Sampling

5.1 *Composition*—The product, as manufactured, shall be in liquid slurry form for application to the substrate by spray, brush, or squeegee. The product shall be composed of water-based latex polymer emulsion to which various mineral fillers and other additives have been added to give the required physical properties.

NOTE 1—To achieve proper slip and skid resistance, an aggregate loading of between 45 and 70 % by weight of total mix is recommended. Aggregate between 105 and 210 μm gives the best results. Aggregate with a minimum Mohs hardness of 6, such as silica sand and ground slate, may

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