



Standard Specification for Hydrated Lime for Use in Asphaltic-Concrete Mixtures¹

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1. Scope

1.1 This specification covers high calcium, dolomitic and magnesian-hydrated lime for use in asphaltic/concrete mixtures.

NOTE 1—Hydrated lime, either calcitic, dolomitic, or magnesian, improves bonding of bitumen and aggregates which reduces susceptibility to moisture damage, reduces age hardening by chemically stabilizing polar compounds found in asphalts, and increases initial stiffness of asphalt mixtures.

NOTE 2—No attempt is made to present requirements for any by-product lime.

1.2 *This standard does not purport to address the safety concerns 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:

C 25 Test Methods of Chemical Analysis of Limestone, Quicklime, and Hydrated Lime²

C 50 Practice for Sampling, Sample Preparation, Packing, and Marking of Lime and Limestone Products²

C 51 Terminology Relating to Lime and Limestone (As Used by the Industry)²

C 110 Test Methods for Physical Testing of Quicklime, Hydrated Lime, and Limestone²

¹ This specification is under the jurisdiction of ASTM Committee C07 on Lime and is the direct responsibility of Subcommittee C07.03 on Industrial Uses.

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² *Annual Book of ASTM Standards*, Vol 04.01.

3. Chemical Requirements

3.1 Unless otherwise specified, for definitions of terms used in this specification, refer to Terminology C 51.

3.2 Hydrated lime for use in bituminous paving mixtures shall conform to the following chemical composition:

Calcium and Magnesium Oxides (on an LOI-free basis, minimum %)	90.0
Carbon Dioxide (taken at point of manufacture, maximum %)	5.0
Unhydrated Calcium and Magnesium Oxides (maximum %)	5.0
Free Moisture of Dry Hydrates (taken at point of manufacture, maximum %)	2.0

4. Physical Requirements

4.1 Hydrated lime, either dry or slurry form, shall not have more than 3.0 % retained on a No. 30 (590 microns) sieve and not more than 30 % retained on a No. 200 (74 microns) sieve.

5. Test Method

5.1 The chemical analysis of the hydrated lime shall be determined in accordance with Test Methods C 25.

5.2 The fineness of hydrated lime shall be determined in accordance with the residue test for hydrated lime and Test Methods C 110.

NOTE 3—Some hydrated limes may require a full 30-min wash time.

6. Sampling, Inspection, Packing and Marking

6.1 The sampling, inspection, rejection, retesting, packing, and marking shall be done in accordance with Practice C 50.

7. Keywords

7.1 asphaltic; concrete; hydrated; lime; mixtures

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