

Standard Specifications for

SLOW-SETTING EMULSIFIED ASPHALT¹

FOR FINE AGGREGATE MIXES



A.S.T.M. Designation: D 631 - 46

ADOPTED, 1943; REVISED, 1946.²

This Standard of the American Society for Testing Materials is issued under the fixed designation D 631; the final number indicates the year of original adoption as standard or, in the case of revision, the year of last revision.

Scope

1. These specifications cover a slow-setting emulsified asphalt for fine aggregate mixes in which a substantial quantity of aggregate passes a $\frac{1}{8}$ -in. sieve and a portion may pass a No. 200 (74-micron) sieve.

Properties and Tests

2. (a) Emulsified asphalt shall be homogeneous. It shall show no separation of asphalt after thorough mixing, within 30 days after delivery, provided separation has not been caused by freezing.

(b) Emulsified asphalt (slow-setting) for fine aggregate mixes shall conform to the following requirements:

Viscosity, Saybolt Furol, 60 ml. at 25 C. (77 F.)	not less than 20 sec., and not more than 100 sec.
Residue by distillation	not less than 57 per cent, and not more than 62 per cent
Sieve test	not more than 0.05 per cent

Modified miscibility with water ^a	difference of asphalt residue not more than 4.5 per cent
Cement mixing test	not more than 2.0 per cent

^a If the sample of emulsified asphalt being tested fails to conform to this requirement for modified miscibility, the sample shall be tested for 5-day settlement and for miscibility, and if the numerical difference between the average percentages of asphaltic residue in the 5-day settlement test is less than 3, and if the standard miscibility test shows no appreciable coagulation in 2 hr., then the emulsified asphalt shall be considered as conforming to these specifications and shall be accepted.

(c) *Residue*.—The residue obtained from distillation shall conform to the following requirements:

Penetration at 25 C. (77 F.), 100 g., 5 sec.	100 to 200
Soluble in carbon disulfide:	
Petroleum asphalts	not less than 97.0 per cent
Native asphalts	not less than 95 per cent
Ash	not more than 2 per cent
Ductility at 25 C. (77 F.)	not less than 60 cm.
Specific gravity at 25 C. (77 F.)	not less than 1.00

Basis of Purchase

3. Prior to the award of the order or contract, a sample may be tested by the purchaser, and if it fails to comply with the specification requirements, the bid accompanying the sample shall be rejected. Prior to any shipments being made on projects requiring 20,000 gal. or more a sample shall be taken, under

¹ Under the standardization procedure of the Society, these specifications are under the jurisdiction of the A.S.T.M. Committee D-4 on Road and Paving Materials.

² Prior to adoption as standard, these specifications were published as tentative from 1941 to 1943.

the supervision of the purchaser, from a lot of not less than 20,000 gal. of the emulsified asphalt and shall be kept in a clean, airtight, sealed container at a temperature of not less than 4 C. (40 F.) until tested.

Sampling

4. At least one sample of not less than 1 gal. shall be taken from each lot or shipment of the emulsified asphalt after arrival at its destination. The samples shall be stored in clean, air-

tight containers at a temperature of not less than 4 C. (40 F.) until tested.

Methods of Testing

5. The properties enumerated in these specifications shall be determined in accordance with the Standard Methods of Testing Emulsified Asphalts (A.S.T.M. Designation: D 244) of the American Society for Testing Materials.³

³ Appears in this publication, see Contents in Numerical Sequence of A.S.T.M. Designations at front of book.