

SIEVE ANALYSIS AND SEPARATION OF SALVAGED AC PAVEMENT PARTICLES FOR RECYCLED ASPHALTIC CONCRETE

(An Arizona Method)

SCOPE

1. (a) This procedure provides a method for separation and sieve analysis of salvaged asphaltic concrete pavement particles which are obtained by crushing, milling, or other processes which renders particles which are to be used in the design and/or construction of recycled asphaltic concrete pavement.

(b) This test method may involve hazardous material, operations, or equipment. This test method does not purport to address all of the safety concerns associated with its use. It is the responsibility of the user to consult and establish appropriate safety and health practices and determine the applicability of any regulatory limitations prior to use.

(c) See Appendix A1 of the Materials Testing Manual for information regarding the procedure to be used for rounding numbers to the required degree of accuracy.

(d) Metric (SI) units and values are shown in this test method with English units and values following in parentheses. Values given for metric and English units may be numerically equivalent (soft converted) for the associated units, or they may be given as rounded or rationalized values (hard converted). Either the metric or English units along with their corresponding values shall be used in accordance with applicable specifications. See Appendix A2 of the Materials Testing Manual for additional information on the metric system.

APPARATUS

2. Requirements for the frequency of equipment calibration and verification are found in Appendix A3 of the Materials Testing Manual. Apparatus for this test procedure shall consist of necessary splitting equipment, sieves for the coarse screening of the materials, shaker, balance, and other miscellaneous items as specified in Arizona Test Method 201.

PROCEDURE

3. A representative sample of salvaged pavement particles is subjected to coarse sieving in accordance with Arizona Test Method 201, except the following:

(a) If separated material is to be used in the design of a recycled mix, the entire nest of coarse [4.75 mm (No. 4) and larger] sieves shall be used. The material is subjected to shaking for 5 minutes \pm 15 seconds.

b) If separation of material on a particular sieve size is desired, for example, the 9.5 mm (3/8 inch) sieve, enough larger size sieves shall be used to prevent overloading of the desired sieve size. The material is subjected to shaking for 5 minutes \pm 15 seconds, and the material retained on each sieve is combined.

NOTE: The use of a specified time of shaking provides for a control on the "breaking down" of the particles of salvaged material into smaller size fractions. A sieving to completion is not attempted in this procedure.

SIEVE ANALYSIS

4. The sieve analysis on the separation of particles is performed as specified in Arizona Test Method 201.