

**INDIANA DEPARTMENT OF TRANSPORTATION  
OFFICE OF MATERIALS MANAGEMENT**

**REDUCING HMA SAMPLES TO TESTING SIZE  
ITM No. 587-08T**

**1.0 SCOPE.**

**1.1** This test method covers the procedures for reducing HMA samples to the appropriate size for testing.

**1.2** The values stated in either acceptable English or SI metric units are to be regarded separately as standard, as appropriate for a specification with which this ITM is used. Within the text, SI metric units are shown in parenthesis. The values in each system may not be exact equivalents; therefore, each system shall be used independent of the other, without combining values in any way.

**1.3** This procedure may involve hazardous materials, operations and equipment and may not address all of the safety problems associated with the use of the test method. The user of the ITM is responsible for establishing appropriate safety and health practices and determining the applicability of regulatory limitations prior to use.

**2.0 SIGNIFICANCE AND USE.** This ITM is used to reduce HMA samples for testing purposes. Minimum size samples, sample sizes that are within a weight (mass) range, and sample sizes that meet a known target weight are required, depending on the type of test conducted.

**3.0 TERMINOLOGY.** Definitions for terms and abbreviations shall be in accordance with the Department's Standard Specifications, Section 101.

**4.0 APPARATUS.**

**4.1** Splitting Board

**4.2** Trowel or dry-wall taping knife

**5.0 PROCEDURE - MINIMUM WEIGHT (MASS)**

**5.1** Place the sample on a clean splitting board

**5.2** Thoroughly mix the sample with a trowel or dry-wall taping knife, and quarter the sample into four approximately equal portions

- 5.3 Recombine two diagonally opposite portions
- 5.4 Weigh the sample. If the sample does not meet the minimum weight (mass) required for the appropriate test method, set aside the sample and repeat 5.2 and 5.3 for the remaining two portions.
- 5.5 Add the additional diagonally opposite portions to the original sample. Repeat this procedure until the minimum weight (mass) required is obtained.
- 5.6 If the sample obtained in 5.3 is excessively large, the sample may be discarded. Repeat 5.2 to 5.5 for the remaining two portions until the required weight (mass) is obtained.

## 6.0 PROCEDURE - WEIGHT (MASS) RANGE.

- 6.1 Place the sample on a clean splitting board
- 6.2 Thoroughly mix the sample with a trowel or dry-wall taping knife, and quarter the sample into four approximately equal portions
- 6.3 Recombine two diagonally opposite portions
- 6.4 Weigh the sample. If the sample does not meet the minimum weight (mass) required for the appropriate test method, set aside the sample and repeat 6.2 and 6.3 for the remaining two portions.
- 6.5 Weigh the additional diagonally opposite portions. If the weight (mass) of the additional portion plus the original sample is less than the minimum required weight (mass), repeat 6.2 and 6.3 and add the portions to the sample. Repeat this procedure until the weight (mass) is within the weight (mass) range. If the weight (mass) of the additional portion plus the original sample is greater than the maximum allowable weight (mass), discard the additional mixture and repeat 6.2 to 6.5 until the weight (mass) is within the weight (mass) range.
- 6.6 If the sample obtained in 6.3 exceeds the maximum allowable weight (mass), discard the sample and repeat 6.2 to 6.5 until the weight (mass) is within the weight (mass) range.

**7.0 PROCEDURE - TARGET WEIGHT (MASS)**

- 7.1** Place the sample on a clean splitting board
- 7.2** Thoroughly mix the sample with a trowel or dry-wall taping knife and quarter the sample into four approximately equal portions
- 7.3** Combine two diagonally opposite portions and weigh the sample
- 7.4** If the sample in 7.3 is less than the target weight (mass) and not within 300 g of the target, repeat 7.2 and 7.3 until the weight is within  $\pm 300$  g of the target weight.
- 7.5** If the sample in 7.3 exceeds the target weight (mass) by more than 300 g, set aside the sample and repeat 7.2 and 7.3 on the remaining portions until the sample is within  $\pm 300$  g of the target weight (mass).
- 7.6** For samples less than and within 300 g of the target weight (mass), mix one remaining quarter into a miniature stockpile. Obtain the additional amount required for the target weight (mass) with a trowel at a location approximately one-third of the height of the stockpile.
- 7.7** For samples more than and within 300 g the target weight (mass), mix the sample into a miniature stockpile. Remove material from the stockpile with a trowel at a location approximately one-third of the height of the stockpile until the target weight (mass) is obtained.