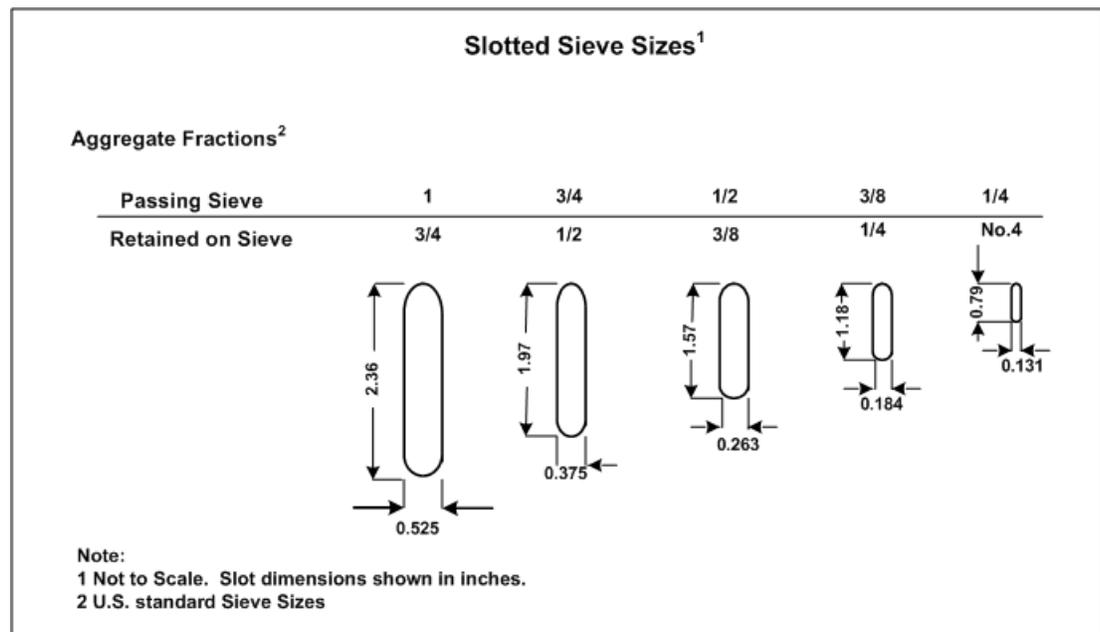


**1223****FLAKINESS INDEX**  
FLH T 508 (Mn/DOT Modified)**1223.1** Scope

The Flakiness Index test determines the percentage of flat particles in a seal coat aggregate.

**1223.2** APPARATUS

- A. A metal plate approximately 0.0625 inches thick with slotted openings conforming to the design and dimensions shown in Figure 1.
- B. Balance - A balance conforming to the requirements of AASHTO M 231 (Class G2) with a minimum capacity of 2000g, a readability and sensitivity of 0.1g and an accuracy of 0.1g or 0.1%.
- C. Oven - Capable of maintaining a temperature of  $110 \pm 5$  °C ( $230 \pm 9$  °F).

**FIGURE 1 – SLOTTED SIEVE OPENINGS.**

**1223.3** SAMPLE PREPARATION

Refer to Section 1201.4I1. Use the material retained on any of the following sieves:  $\frac{3}{4}$ ",  $\frac{1}{2}$ ",  $\frac{3}{8}$ ",  $\frac{1}{4}$ " or the #4 sieve and has been placed into separate containers. Aggregates retained on each sieve which comprises at least 4 percent of the total sample, shall be tested.

**1223.4** PROCEDURE

- A. Wash and oven dry samples to a constant weight at  $110 \pm 5$  °C. ( $230 \pm 9$  °F.)
- B. Test each of the particles in each size fraction using the proper slot opening for each sieve size.
- C. Separate the particles passing through the slot from those that do not pass through the slot.
- C. Weigh the particles passing the slot to the nearest 0.1 gram.
- D. Weigh the particles retained on the gauge to the nearest 0.1 gram.

**1223.5** CALCULATIONS FOR AN INDIVIDUAL SIEVE SIZE

$$\% \text{ Flakiness Index} = \frac{A}{A + B} \times 100$$

Where:

A = Weight passing a given slot

B = Weight retained on the same slot

Report Flakiness Index to the nearest whole number.

**1223.6** CALCULATIONS FOR MULTIPLE SIEVE SIZES

$$\% \text{ Flakiness Index} = \frac{A + A_1 + A_2}{A + A_1 + A_2 + B + B_1 + B_2} \times 100$$

Where:

A, A<sub>1</sub>, A<sub>2</sub> = Weight passing a given slot

B, B<sub>1</sub>, B<sub>2</sub> = Weight retained on the same slot

Report Flakiness Index to the nearest whole number.

## 1223.7 WORKSHEET

**FLAKINESS INDEX  
FLH 508**

Laboratory \_\_\_\_\_ Type of Material \_\_\_\_\_

Source \_\_\_\_\_

Location \_\_\_\_\_

Tested By \_\_\_\_\_ Date \_\_\_\_\_

SIEVE SIZES	WEIGHT PASSING (g)	WEIGHT RETAINED (g)
(1/2") 0.375" Slot	10.1	35.0
(3/8") 0.263" Slot	4.2	62.1
(1/4") 0.184" Slot	22.5	57.4
(#4) 0.131" Slot	16.0	65.9

<b>TOTAL PASSING</b>	<u>52.8g</u>	<b>TOTAL RETAINED</b>	<u>220.4g</u>
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$$\% \text{ Flakiness Index} = \frac{\text{TOTAL PASSING}}{\text{TOTAL PASSING} + \text{TOTAL RETAINED}} \times 100$$

$$\% \text{ Flakiness Index} = \frac{52.8g}{52.8g + 220.4g} \times 100$$

$$\% \text{ Flakiness Index} = 19.3\% \text{ rounded to } 19\%$$