

Section 987
METHOD FOR DETERMINING THE AVERAGE LEAST DIMENSION OF COVER AGGREGATES

987.01 Objectives

This method describes a procedure to be followed to determine the Average Least Dimension of a cover aggregate intended for use in a bituminous surface treatment or seal coat. The Average Least Dimension of the cover aggregate is used to determine the starting spread rate for seal coat operations.

987.02 Scope

A representative sample of the project cover aggregate is used to determine the Median Size and the Flakiness Index; then, using Figure 2, the Average Least Dimension of sample is determined.

987.03 Procedure for Determining the Median Size of the cover aggregate

Weigh a surface-dry sample of the cover aggregate and determine the distribution of particle sizes listed in Table 1 by means of sieves with square openings following procedures outlined in AASHTO T 27.

Table 1

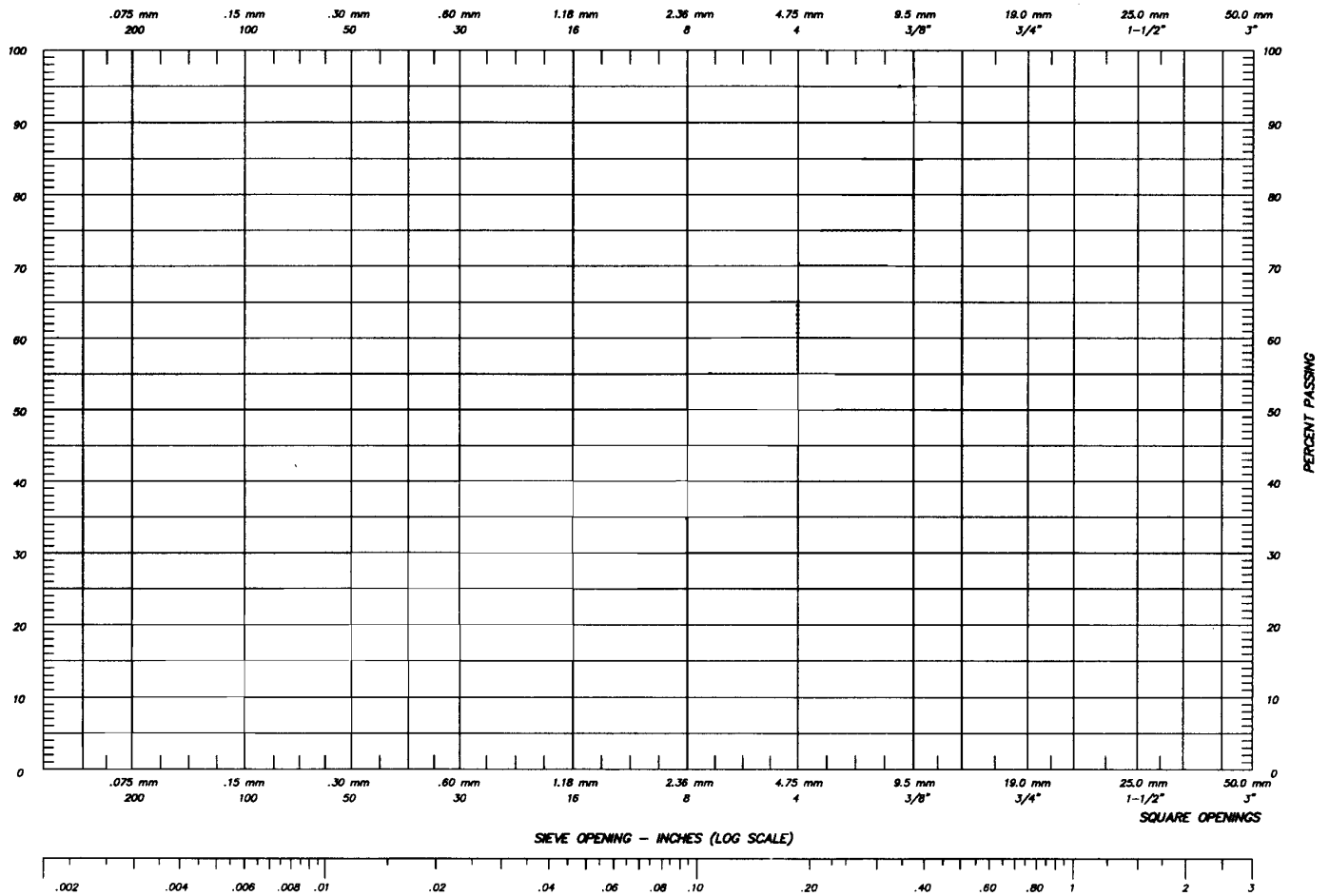
Standard Sieve Designation
Passing
½ in.
3/8 in.
¼ in.
No. 4
No. 8
No. 16

On completion of sieving, weigh the material retained on each sieve on a balance sensitive to 0.1 percent of weight of the test sample. Record data on a work sheet and calculate the weight passing each sieve, expressed as a percentage of the total weight of the sample.

Report the results to the nearest 1 percent and plot the grading curve on a grading sheet shown as Figure 1.

Determine and record the Median Size of the cover material. The median size is that theoretical sieve size in inches through which 50 percent of the cover material will pass. The Median Size is read off from the scale at the bottom of Figure 1.

Figure 1 Aggregate Grading Chart



987.04 Flakiness Index

Determine and record the Flakiness Index of the cover material using MOI 933.

987.05 Average Least Dimension

Determine and record the Average Least Dimension of the cover material by using the previously determined Median Size and Flakiness Index.

Use Figure 2 and proceed horizontally from the median size on the vertical axis to the diagonal line representing the Flakiness Index for the sample. From this intersection, proceed vertically to the horizontal axis and read off and record the Average Least Dimension.

Figure 2.

