

STANDARD METHOD OF TEST FOR QUANTITY OF CLAY AND SILT IN GRAVEL FOR HIGHWAY CONSTRUCTION.

Serial Designation: D 72 - 21.

This method is issued under the fixed designation D 72; the final number indicates the year of original adoption as standard, or in the case of revision, the year of last revision.

PROPOSED AS TENTATIVE, 1920; ADOPTED, 1921.

1. This test covers the determination of the quantity of Scope.
clay and silt in natural gravel to be used in highway construction.
2. The sample as received shall be moistened and thoroughly Treatment of
mixed, then dried to constant weight at a temperature between Sample.
100 and 110° C. (212 and 230° F.).
3. The pan or vessel to be used in the determination shall Apparatus.
be 12 in. (30.5 cm.) in diameter by not less than 4 in. (10.2 cm.)
deep, as nearly as may be obtained.
4. (a) A representative portion of the dry material weighing Procedure.
not less than 50 times the weight of the largest stone in the
sample shall be selected from the sample and placed in the pan
which has been dried and accurately weighed.
- (b) Sufficient water shall be poured into the pan to cover
the gravel. The gravel shall be agitated vigorously for 15 seconds
with a trowel or stirring rod. After it has settled for 15 seconds
the water shall be poured off into a tared evaporating dish, care
being taken not to pour off any gravel. This is repeated until
the wash water is clear. The washed material shall be dried to
constant weight in an oven at a temperature between 100 and
110° C. (212 and 230° F.), weighed, and the net weight of gravel
determined.
5. The percentage of clay and silt shall be calculated from Percentage of
the formula: Clay.

$$\text{Percentage of Clay and Silt} = \frac{\text{Original weight} - \text{weight after washing}}{\text{Original weight}} \times 100.$$

6. For a check on the results, the wash water shall be Check
evaporated to dryness and the residue weighed: Determination.

$$\text{Percentage of Clay and Silt} = \frac{\text{Weight of residue}}{\text{Original weight}} \times 100.$$