I. **SCOPE.** Shales used for highway embankments and/or subgrades should be classified as soil-like, or non-durable, and rock-like or durable. This method is a preliminary shale classification screening test.

II. **DEFINITION.** The jar-slake test is qualitative with six (6) descriptive degrees of slaking determined from visual observation of oven-dried samples soaked in tap water for 24 hours. The six (6) values of the jar-slake index, $I_j$, are listed below:

A. $I_j$ = Descriptive behavior.
B. 1 = Degrades into a pile of flakes or mud.
C. 2 = Breaks rapidly and/or forms many chips.
D. 3 = Breaks rapidly and/or forms several fractures.
E. 4 = Breaks slowly and/or forms several fractures.
F. 5 = Breaks slowly and/or develops few fractures.
G. 6 = No change.

III. **APPARATUS.**

A. 1 pint (500 milliliter) beaker.
B. Drying oven, thermostatically controlled, preferably of the forced draft type, capable of being heated continuously at a temperature of $230^\circ \pm 9^\circ F (110^\circ \pm 5^\circ C)$.
C. Stirring rod, glass.

IV. **TEST SAMPLE.** Select a representative sample containing several pieces weighing approximately 20 grams each.

V. **PROCEDURE.**

A. Oven dry sample a minimum of 16 hours.
B. Immerse pieces of oven-dried sample in distilled tap water.
C. Describe the resulting behavior by means of the listed six jar-slake index ($I_j$) values.1

VI. **REFERENCES.**


Federal Highway Administration, "Design and Construction of Compacted Shale Embankments,"

Note:

Where reactions are likely to occur, they happen quickly; therefore, careful observations during the first 30 minutes are recommended.