

**ALDOT-338-83**  
**TEST METHOD FOR FLOW OF GROUT MIXTURES (FLOW CONE METHOD)**

**1. Scope**

- 1.1. This test method covers the procedure to be used in the field to determine the flow of grout mixtures.

**2. Applicable Documents**

- 2.1. U.S. Corps of Engineers Test Method: CRD-C79-58 Test Method of Test for Flow of Grout Mixtures.

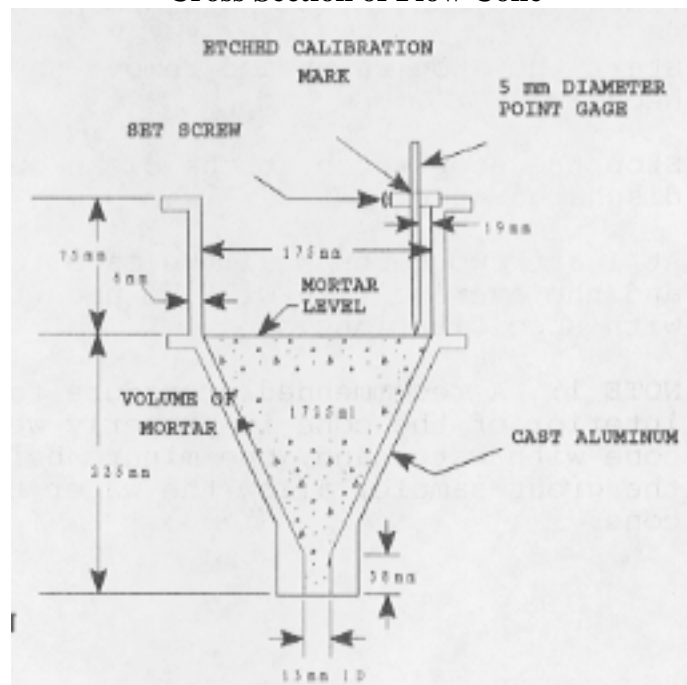
**3. Summary of Method**

- 3.1. Measure the length of time required for a specified volume of grout to flow from a standardized flow cone with a stopwatch.
- 3.2. The time of efflux of the grout mixture is the time measured with the stopwatch.

**4. Apparatus**

- 4.1. Flow Cone - The flow cone shall conform to the requirements indicated in Figure 1.

**Cross Section of Flow Cone**



**Figure 1**

- 4.2. Stop Watch - A stopwatch capable of reading to the nearest 0.5 second.

## 5. Preparation of Apparatus

- 5.1. The flow cone shall be firmly mounted in such a manner that the top will be level and the cone free from vibration.
- 5.2. The discharge tube shall be closed by placing the finger over the lower end.
- 5.3. A quantity of water equal to  $1725 \pm 1$  mL shall be introduced into the cone.
- 5.4. The point gage shall be adjusted to indicate the level of the water surface.

## 6. Sample

- 6.1. The test sample shall consist of  $1725 \pm 1$  ml of grout.

## 7. Procedure

- 7.1. Moisten the inside surface of the flow cone, refer to Note 1.
- 7.2. Place the finger over the outlet of the discharge tube.
- 7.3. Introduce grout into the cone until the grout surface rises into contact with the point gage.
- 7.4. Start the stopwatch and remove the finger simultaneously.
- 7.5. Stop the stopwatch at the clean out of grout from the discharge tube.
- 7.6. At least two tests shall be made for any grout mixture and the average time will be used to verify compliance with specifications.

**Note 1:** A recommended procedure for insuring that the interior of the cone is properly wetted is to fill the cone with water and, one minute before beginning to add the grout sample, allow the water to drain from the cone.