

## Method of Sampling Fresh Concrete

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### 1. Scope:

This test covers the procedure for obtaining samples of fresh concrete.

### 2. Apparatus:

2.1 Shovel and pails.

2.2 Wheelbarrow (Optional).

### 3. Procedure:

3.1 Stationary mixers or volumetric mixers.

- A. Obtain a sample by passing a receptacle completely through the discharge stream of the mixer at about the middle of the batch, or diverting the stream completely so that it discharges into a wheelbarrow or other container.

3.2 Revolving truck mixers.

- A. Take the sample at 2 or more intervals during the discharge of the middle portion of the batch. The samples shall not be taken at the beginning or end of discharge and never obtain the samples until after all the water has been added to the mixer. Pass a receptacle through the entire discharge stream, or by diverting the stream completely to discharge into a wheelbarrow or other container. Regulate the discharge of the batch by the rate of revolution of the drum and not by the size of the opening.
- B. Sampling may be in accordance with paragraph 3.3.

**NOTE: The sampling of the concrete for drilled shafts shall be at the beginning of the batch after 5 gallons ± of concrete has been discharged from the mixing drum.**

3.3 Dump trucks or open top truck mixers, agitators.

- A. Discharge the contents of the truck and collect the sample from at least 5 different locations of the pile.

**NOTE: The sampling of the concrete for PCC paving train operations shall be obtained from at least 5 different locations immediately ahead of the paver.**

3.4 Pumps.

- A. Take the sample from the discharge end of the pump. Collect the sample from at least 5 different locations of the pile. Discharge shall not be directly into a sampling bucket. Sample shall be taken at same location where discharge is being incorporated into the structures. Pump should not be shut off or angle of discharge changed.
- B. When sampling from end of discharge hose is not possible, sample according to 3.2 A.

3.5 Testing the sample.

- A. Procedures for obtaining a composite sample shall be completed within 15 minutes. The sample shall be transported to the place where tests are to be made and shall be remixed with a shovel to insure uniformity. The sample should be protected from the sun and wind until used. Start tests for slump, temperature, air content, and unit weight within five minutes after obtaining the final portion of the composite sample. Start molding specimens for strength tests within 15 minutes after fabricating the composite sample.
- B. Volumetric mixer (Low slump). Following mixing of the sample, place in a covered container. When five minutes has elapsed, the sample shall be tested immediately.

**4. Report:**

None required.

**5. References:**

None.