



**DOH 10**

# **SAMPLING FRESH PORTLAND CEMENT CONCRETE**

## **1. SCOPE**

1.1 This method covers the procedure for obtaining samples of fresh Portland cement concrete from stationary, paving and truck mixers, agitators, or dump trucks.

## **2. SAMPLE SIZE**

2.1 The sample obtained shall not consist of less than 1 cubic foot (0.028 cubic meters) of material when it is to be used for strength testing.

2.2 Smaller samples may be permitted for routine air content and slump tests.

## **3. SAMPLING PROCEDURE**

3.1 The procedures used in sampling shall include the use of every precaution that will assist in obtaining samples that will be representative of the true nature and condition of the concrete sampled.

3.2 If routine tests are required for air content, slump, and temperature, the sample of concrete may be obtained from a single point in the load, provided at least 1 ½ cubic yards have been discharged and at least 1 ½ cubic yards of material remains.

3.3 Sampling from stationary mixers - both tilting and non-tilting

3.3.1 The sample shall be obtained by passing a receptacle completely through the discharge stream of the mixer at the middle of the batch, or by diverting the stream completely so that it discharges into a container.

3.3.2 Care shall be taken not to restrict the flow from the mixer in such a manner as to cause the concrete to segregate.

3.4 Sampling from paving mixers

3.4.1 The contents of the paving mixer shall be discharged

3.4.2 The sample shall be collected from at least 3 different portions of the pile.

### 3.5 Sampling from Revolving Drum Truck Mixers or Agitators

3.5.1 The sample shall be taken at 2 or more regular intervals throughout the discharge of the entire batch. Samples should not be taken at the beginning or end of discharge.

3.5.2 Sampling shall be done by repeatedly passing a receptacle through the entire discharge stream or by diverting the stream completely so that it discharges into a container.

3.5.3 The rate of discharge of the batch shall be regulated by the rate of revolution of the drum, not by the size of the gate opening.

### 3.6 Sampling from Open-Top Truck Mixers, Agitators, Dump Trucks, or Other Types of Open-Top Containers

3.6.1 Samples shall be taken according to procedures listed in 3.3, 3.4, or 3.5, whichever is the most applicable under the given conditions.

## **4. REMIXING SAMPLE**

4.1 The sample shall be transported to the place where test specimens are to be molded or where the test is to be made, and shall be re-mixed with a shovel to ensure uniformity.

4.2 The sample shall be protected from sunlight and wind from the time it is obtained until testing is performed, which shall not exceed 15 minutes.