1. **SCOPE**

1.1. **Description of Test**

This test method covers procedures for obtaining representative samples of fresh concrete as delivered to the project site. Samples will be used to determine compliance with quality requirements.

1.2. **Application of Test**

The elapsed time between obtaining the first and final portions of the composite samples will be as short as possible, but in no instance shall it exceed 15 minutes.

Transport samples to the place where fresh concrete tests are to be performed or where test specimens are to be molded. Combine and remix with a shovel the minimum amount necessary to ensure uniformity.

Start tests for slump or air content, or both, within 5 minutes after the sampling is completed. Start molding specimens for strength tests within 15 minutes after obtaining the composite sample.

Keep the elapsed time between obtaining and using the sample as short as possible and protect the sample from the sun, wind and other sources of rapid evaporation, and from contamination.

2. **PROCEDURE**

2.1. **Sample Preparation**

**Size of Sample**

The sample to be used for strength tests will be a minimum of 30 litres but small samples may be permitted for air content and slump tests.
Concrete from the slump test may be reused for other tests providing that it is thoroughly recombined with the whole sample.

**Sampling from Stationary Mixers, Conveyor Belts and Pump Lines**

Sample the concrete at two or more regular spaced intervals during discharge of the middle portion of the batch and remix the portions within 15 minutes. Do not obtain samples from the very first or last portions of the batch discharge.

Sample by passing a receptacle completely thorough the discharge stream, or by completely diverting the discharge into a sample container.

Take care not to restrict the flow of concrete from the mixer, container, or transportation unit so as not to cause segregation. These requirements apply to both tilting and non-tilting mixers.

Sampling should normally be performed as the concrete is delivered from the mixer to the equipment that is used to convey the concrete to the forms. However, specifications may require other points of sampling, e.g.: at the discharge of a concrete pump.

**Sampling from Revolving Drum Truck Mixer or Agitator**

Sample the concrete at two or more regularly spaced intervals during discharge of the middle portion of the batch and remix the portions within 15 minutes.

Do not obtain samples from the very first or last portions of the batch discharge or before all retempering water has been added and thoroughly mixed.

Sample by repeated passing of a receptacle through the entire discharge stream or by completely diverting the discharge into a sample container.

Regulate the rate of discharge of the batch by the rate of revolution of the drum and not by the size of the gate opening.
3. ADDED INFORMATION

3.1. References

A.S.T.M. C-172 and C.S.A. A23.3-1C

3.2. General

Composite samples are required by this test method, unless specifically excepted by procedures governing the test to be performed. Tests to determine uniformity of consistency and mixer efficiency require a series of individual samples. Procedures used to select the specific test batches are not described in this test method, but it is recommended over-all specification compliance.
APPROVAL SHEET

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Approval Recommended by A.R. Gerbrant  - -
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Approved by  D.G. Metz  - -
  Assistant Deputy Minister, Infrastructure  Date
  Electronic File Updated  - -
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