

# SLOVENSKI STANDARD SIST EN 12350-1:2001

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Preskušanje svežega betona - 1. del: Odvzem vzorcev

Testing fresh concrete - Part 1: Sampling

Prüfung von Frischbeton - Teil 1: Probenahme

Essai pour béton frais Partie 1: Echantillonnage PREVIEW

Ta slovenski standard je istoveten z: (standards.iteh.ai) EN 12350-1:1999

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ICS:

91.100.30 Beton in betonski izdelki Concrete and concrete

products

SIST EN 12350-1:2001 en

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# EUROPÉAN STANDARD

# NORME EUROPÉENNE EUROPÄISCHE NORM

## EN 12350-1

October 1999

ICS 91.100.30

## English version

## Testing fresh concrete - Part 1: Sampling

Essai pour béton frais - Partie 1: Echantillonnage

Prüfung von Frischbeton - Teil 1: Probenahme

This European Standard was approved by CEN on 5 September 1999.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

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#### **Foreword**

This European Standard has been prepared by Technical Committee CEN/TC 104 "Concrete (performance, production, placing and compliance criteria)", the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2000, and conflicting national standards shall be withdrawn at the latest by December 2003.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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This standard is one of a series concerned with testing concrete.

It is based on International Standard ISO 2736/17 Concrete tests - test specimens - Part 1: Sampling of fresh concrete as 1804152d3b/sist-en-12350-1-2001

A draft for this standard was published in 1996 for CEN enqury as prEN 12378. It was one of a series of individually numbered test methods for fresh or hardened concrete. For Convenience it has now been decided to combine these separate draft standards into three new standards with separate parts for each methods, as follows:

- Testing fresh concrete (EN 12350:1999)
- Testing hardened concrete (prEN 12390:1999)
- Testing concrete in structures (prEN 12504:1999)

This series EN 12350 includes the following parts where the brackets give the numbers under which particular test methods were published for CEN enquiry:

EN 12350 Testing fresh concrete

- Part 1: Sampling (former prEN 12378:1996)
- Part 2: Slump test (former prEN 12382:1996)
- Part 3: Vebe test (former prEN 12350:1996)
- Part 4: Degree of compactability (former prEN 12357:1996)
- Part 5: Flow table test (former prEN 12358:1996)
- Part 6: Density (former prEN 12383:1996)
- Part 7: Air content Pressure methods (former prEN 12395:1996)

Caution. When cement is mixed with water, alkali is released. Take precautions to avoid dry cement entering the eyes, mouth and nose whilst mixing concrete. Prevent skin contact with wet cement or concrete by wearing suitable protective clothing. If cement or concrete enters the eye, immediately wash it out thoroughly with clean water and seek medical treatment without delay. Wash wet concrete off the skin immediately.

### 1 Scope

This standard specifies two procedures for sampling fresh concrete, by composite sampling and by spot sampling.

NOTE. The requirement for remixing the sample before tests on the fresh concrete, or before making test specimens, is included in the relevant standards.

When mixing and sampling of concrete is done in a laboratory, different procedures may be required.

#### 2 Definitions

For the purposes of this standard the following definitions apply:

- 2.1 batch: quantity of fresh concrete which is:
- mixed in one cycle of operation of a batch mixer;
- or, discharged during 1 min from a continuous mixer;
- or, conveyed ready-mixed in a truck mixer when the load requires more than one cycle of a batch mixer or more than one minute of operation of a continuous mixer.
- **2.2 composite sample**: quantity of concrete, consisting of a number of increments distributed through a batch or mass of concrete, thoroughly mixed together.
- 2.3 spot sample: quantity of concrete taken from part of a batch or mass of concrete, consisting of one or more increments thoroughly mixed together TANDARD PREVIEW
- 2.4 increment: quantity of concrete taken by the single operation of a scoop or similar sampling device.
- 3 Apparatus

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- Apparatus https://standards.iteh.ai/catalog/standards/sist/4dd13eb4-f7fd-43ce-ba08-a51804152d3b/sist-en-12350-1-2001
- 3.1 Scoop, or similar sampling device, made from non-absorbent material not readily attacked by cement paste, suitable for taking increments of concrete.
- 3.2 One or more containers, made from non-absorbent material not readily attacked by cement paste, for receiving increments of the concrete.
- 3.3 Thermometer, (optional), to measure the temperature of the fresh concrete to an accuracy of  $\pm 1$  °C.

#### 4 Sampling

#### 4.1 Sampling Plan

Depending upon the intended use of the sample, decide whether a spot sample or a composite sample is to be taken. Take at least 1,5 times the quantity estimated as being required for the tests.

#### 4.2 Obtaining a composite sample

Clean all the apparatus prior to use. Using the scoop take the required number of increments, uniformly distributed throughout the batch. When sampling from the discharging stream of concrete from a stationary batch mixer or ready-mixed concrete truck, disregard the very first part and the very last part. If the batch has been deposited in a heap or heaps of concrete, take the increments, wherever possible, distributed through the depth of the concrete, as well as over the exposed surface, at a minimum of five different places. When sampling from a falling stream, take the increments in such a way as to represent the whole width and thickness of the stream. Deposit the increments into the container(s). Record the date and time of sampling.

#### 4.3 Obtaining a spot sample

Clean all the apparatus prior to use. Using the scoop take the increment(s) from the required part of a batch or mass of concrete. Deposit the increment(s) in the container. Record the date and time of sampling.

#### 4.4 Measuring the temperature of the sample

If required, the temperature of the concrete in the container(s) shall be measured.

#### 4.5 Transporting, handling and care of samples

At all stages of sampling, transport and handling, protect the fresh concrete samples against contamination, gaining or losing water and extreme variations of temperature.

NOTE. The properties of fresh concrete change with time after mixing, depending upon the environmental conditions. This should be taken into account in deciding the time when tests are carried out or specimens made.

Take care when the concrete is taken from the container(s) to ensure that no more than a light covering of mortar is left adhering to the container(s).

#### 5 Report of sampling

Each sample shall be accompanied by a report from the person responsible for taking the sample. The report shall include: iTeh STANDARD PREVIEW

b) type of sample: composite or spot;
c) description of the sample;
c) description of the sample;

c) description of where the sample was taken;

d) date and time of sampling;

- e) any deviations from the standard method of sampling st/4dd13eb4-f7fd-43ce-ba08-
- f) a declaration by the person technically responsible, that the sample was obtained in accordance with this standard, except as noted in item e).

The report can include:

- g) ambient weather and weather conditions:
- h) temperature of the concrete sample.