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**Testing of concrete —**

Part 8:

**Determination of drying shrinkage of  
concrete for samples prepared in the field  
or in the laboratory**

*Essais du béton —*

*Partie 8: Détermination du retrait de séchage du béton d'échantillons  
préparés sur le terrain ou en laboratoire*



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Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
E-mail [copyright@iso.org](mailto:copyright@iso.org)  
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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 1920-8 was prepared by Technical Committee ISO/TC 71, *Concrete, reinforced concrete and pre-stressed concrete*, Subcommittee SC 1, *Test methods for concrete*.

ISO 1920 consists of the following parts, under the general title *Testing of concrete*:

- *Part 1: Sampling of fresh concrete*
- *Part 2: Properties of fresh concrete*
- *Part 3: Making and curing test specimens*
- *Part 4: Strength of hardened concrete*
- *Part 5: Properties of hardened concrete other than strength*
- *Part 6: Sampling, preparing and testing of concrete cores*
- *Part 7: Non-destructive tests on hardened concrete*
- *Part 8: Determination of drying shrinkage of concrete for samples prepared in the field or in the laboratory*
- *Part 9: Determination of creep of concrete cylinders in compression*

The following part is under preparation:

- *Part 10: Determination of static modulus of elasticity in compression*

## Testing of concrete —

### Part 8:

## Determination of drying shrinkage of concrete for samples prepared in the field or in the laboratory

### 1 Scope

This part of ISO 1920 specifies a method for determining the length changes of concrete specimens due to drying in air, and the method of preparing and curing the concrete specimens to be tested.

It is applicable for the testing of specimens prepared in the laboratory or in the field, in which the maximum nominal size of aggregate in the concrete, in accordance with ISO 6274, does not exceed 25 mm.

The precision statement in Clause 10 does not apply to specimens that have had non-standard initial curing (normally field-prepared specimens). In addition, this part of ISO 1920 requires that field-prepared specimens be marked, recorded and reported as such.

NOTE 1 This test method is not always suitable for very low slump concrete (less than 20 mm), primarily due to the difficulties in obtaining adequate compaction. Provided adequate compaction is obtained, the method is applicable.

NOTE 2 The method is specifically developed for measurement of drying shrinkage of concrete, but it is capable of adaptation for measurement of length changes of specimens subjected to a variety of environmental conditions.

### 2 Normative references

The following referenced documents are essential for the application of this part of ISO 1920. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 1920-1, *Testing of concrete — Part 1: Sampling of fresh concrete*

ISO 1920-2, *Testing of concrete — Part 2: Properties of fresh concrete*

ISO 1920-3:2004, *Testing of concrete — Part 3: Making and curing test specimens*

ISO 6274, *Concrete — Sieve analysis of aggregates*

### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

#### 3.1

##### preparing laboratory

laboratory responsible for sampling of concrete, moulding of specimens, initial curing in moulds, demoulding, initial moist curing and transport to measuring laboratory (if required)