INTERNATIONAL STANDARD

ISO 1920-5

First edition
2004-10-15

Testing of concrete —

Part 5: Properties of hardened concrete other than strength

Essais du béton —

Partie 5: Caractéristiques du béton durci autres que la résistance

Reference number
ISO 1920-5:2004(E)

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

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 1920-5 was prepared by Technical Committee ISO/TC 71, *Concrete, reinforced concrete and pre-stressed concrete*, Subcommittee SC 1, *Test methods for concrete*.

This first edition of ISO 1920-5 cancels and replaces ISO 6275:1982 which has been technically revised.

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 5: Properties of hardened concrete other than strength*

— *Part 6: Sampling, preparing and testing concrete cores*

— *Part 7: Non-destructive tests of hardened concrete*

Part 4, *Strength of hardened concrete*, is in preparation.

Testing of concrete —

Part 5:
Properties of hardened concrete other than strength

1 Scope

This part of ISO 1920 specifies procedures for testing properties of hardened concrete other than strength.

2 Normative references

The following referenced document is essential for the application of this document. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 1920-3, *Testing Concrete — Part 3: Making and curing test specimens*

3 Definitions

For the purpose of this document, the following definition applies.

3.1
density
ratio of the mass of a given quantity of hardened concrete to its volume

NOTE The density is expressed in kilograms per cubic metre.

4 Determination of density of hardened concrete

4.1 General

This test method is applicable to lightweight, normal-weight and heavy-weight concrete.

It differentiates between hardened concrete in the following states:

— as-received;

— saturated;

— oven-dried.

The mass and the volume of the specimen of hardened concrete are determined and the density calculated.

4.2 Apparatus

4.2.1 **Callipers** and **rules**, capable of determining the dimensions of a specimen to within ± 0,5 %.