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Testing of concrete —

Part 4: Strength of hardened concrete

Essais du béton —

Partie 4: Résistance du béton durci

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

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

This second edition cancels and replaces the first edition (ISO 1920-4:2005), which has been technically revised.

The main changes compared to the previous edition are as follows:

— the requirements for compressive testing machine have been included and defined;

— the testing age and number of specimens that need to be tested have been included and defined;

— the subclause on loading (see 5.6.2) has been updated.

A list of all parts in the ISO 1920 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Testing of concrete —

Part 4:
Strength of hardened concrete

1 Scope

This document specifies procedures for testing the strength of hardened concrete.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 48-2, *Rubber, vulcanized or thermoplastic — Determination of hardness — Part 2: Hardness between 10 IRHD and 100 IRHD*

ISO 679, *Cement — Test methods — Determination of strength*

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

ISO 1920-6, *Testing of concrete — Part 6: Sampling, preparing and testing of concrete cores*

ISO 2781, *Rubber, vulcanized or thermoplastic — Determination of density*

ISO 3310-1, *Test sieves — Technical requirements and testing — Part 1: Test sieves of metal wire cloth*

ISO 4662, *Rubber, vulcanized or thermoplastic — Determination of rebound resilience*

EN 316, *Wood fiberboards — Definition, classification and symbols*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

4 Determination of compressive strength

4.1 Test specimens

The test specimen shall be:

— a cube or a cylinder in accordance with ISO 1920-3; or

— cores in accordance with ISO 1920-6.

Damaged specimens shall not be tested.

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