International Standard 4103

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Concrete — Classification of consistency

Béton — Classification de la consistence

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FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 4103 was developed by Technical Committee ISO/TC 71, *Concrete, reinforced concrete and pre-stressed concrete*, and was circulated to the member bodies in April 1977.

It has been approved by the member bodies of the following countries :

Belgium	India	South Africa, Rep. of
Brazil	Israel	Spain
Bulgaria	Italy	Thailand
Canada	Mexico	Turkey
Denmark	New Zealand	USA
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Germany, F. R.	Poland	
Hungary	Romania	

The member bodies of the following countries expressed disapproval of the document on technical grounds :

Austria
Czechoslovakia
United Kingdom
USSR

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Concrete — Classification of consistency

1 SCOPE

This International Standard establishes a classification of fresh concrete according to its consistency.

2 FIELD OF APPLICATION

The requirements set out in tables 1 and 2 apply to all types of concrete with the limitations given in ISO 4110 and ISO 4109 on Vebe and Slump tests respectively.

3 REFERENCES

ISO 4109, *Fresh concrete — Determination of the consistency — Slump test.*[1)]

ISO 4110, *Fresh concrete — Determination of the consistency — Vebe test.*[1)]

ISO 4111, *Fresh concrete — Determination of the consistency — Degree of compactibility.*[1)]

4 SAMPLING AND TESTING

The samples of fresh concrete shall be obtained and the testing carried out in accordance with the appropriate method as specified in the corresponding International Standards.

5 CLASSIFICATION

TABLE 1 — **Vebe classes**

Class	Vebe seconds
V0	⩾ 31
V1	30 to 21
V2	20 to 11
V3	10 to 5
V4	⩽ 4

TABLE 2 — **Slump classes**

Class	Slump, mm[1)]
S1	10 to 40
S2	50 to 90
S3	100 to 150
S4	⩾ 160

1) The Slump measured is to be rounded off to the nearest 10 mm.

6 COMPLIANCE

The consistency, as determined from individual samples taken at the location of placing of the concrete and representative of any given batch of concrete, shall lie within the specified class as set out in tables 1 and 2.

1) At present at the stage of draft.

ANNEX

ALTERNATIVE CLASSIFICATIONS

In addition to the standardized methods given in this International Standard, it is also possible to classify consistency using other methods, for example the method of degree of compaction, shown in table 3.

TABLE 3 – **Compaction classes**

Class	**Degree of compactibility** (ISO 4111)
C0	⩾ 1,46
C1	1,45 to 1,26
C2	1,25 to 1,11
C3	1,10 to 1,04