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# International Standard



# 4103

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

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## Concrete — Classification of consistency

*Béton — Classification de la consistance*

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**Descriptors** : concretes, fresh concrete, classification, consistency.

## 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.

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

Belgium  
Brazil  
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Austria  
Czechoslovakia  
United Kingdom  
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# Concrete — Classification of consistency

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### 1 SCOPE

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

method as specified in the corresponding International Standards.

### 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.*<sup>1)</sup>

ISO 4110, *Fresh concrete — Determination of the consistency — Vebe test.*<sup>1)</sup>

ISO 4111, *Fresh concrete — Determination of the consistency — Degree of compactibility.*<sup>1)</sup>

### 4 SAMPLING AND TESTING

The samples of fresh concrete shall be obtained and the testing carried out in accordance with the appropriate

### 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 <sup>1)</sup>
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**

<b>Class</b>	<b>Degree of compactibility (ISO 4111)</b>
<b>C0</b>	≥ 1,46
<b>C1</b>	1,45 to 1,26
<b>C2</b>	1,25 to 1,11
<b>C3</b>	1,10 to 1,04

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