INTERNATIONAL STANDARD

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Building construction — Tolerances — Expression of dimensional accuracy — Principles and terminology

Construction immobilière — Tolérances — Expression de l'exactitude dimensionelle — Principes et terminologie

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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.

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.

International Standard ISO 1803 was prepared by Technical Committee ISO/TC 59, *Building construction,* Subcommittee SC 4, *Dimensional tolerances and measurement.*

It cancels and replaces ISO 1803-1:1985, ISO 1803-2:1986 and ISO 4464:1980.

In this edition the expression of dimensional accuracy is built up round the concept of target size. A list of basic terms, their definitions, and a list of terms relating to dimensional variability, together with their definitions, is included.

Annexes A and B of this International Standard are for information only.

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Building construction — Tolerances — Expression of dimensional accuracy — Principles and terminology

1 Scope

This International Standard describes the basic principles for the expression of dimensional deviation in building, and defines the basic terms and definitions relating to the evaluation, specification and verification of accuracy.

It is applicable to the manufacture of building components (standard or purpose made), the setting out process, erection and assembly, and the building as a whole.

Annex A gives equivalent terms in French and German. Annex B lists International Standards related to dimensions and dimensional accuracy in building.

2 General principles

The process of building construction causes specific problems in the field of the achievement of accuracy and fit which require detailed examination in relation to techniques of construction, performance and aesthetic requirements, as well as the cost of erection of the building, its intended use and the possible replacement of components during its lifetime. The construction under site conditions of a large-scale object such as a building, involving the assembly of dimensionally variable components by means of a sequence of measuring and positioning operations, can result in deviations from the designed size and shape (induced deviations). Coupled with this are the inevitable dimensional changes resulting from movements and change of size of materials in response to changes in ambient, loading and other conditions (inherent deviations).

This international Standard forms part of a coordinated set of standards by means of which

a) the expected dimensional variability may be both assessed and allowed for in design (using the probability concept if desired);

b) the dimensional needs of joints can be compared with expected variabilities so that functionally satisfactory joints can be achieved;

c) the accuracy requirements, which reflect the needs of the design, may be clearly specified for all stages of construction;