
INTERNATIONAL STANDARD



2445

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

Joins in building — Fundamental principles for design

First edition — 1972-10-01

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UDC 72.011

Ref. No. ISO 2445-1972 (E)

Descriptors : construction, buildings, joints (junctions), construction joints, design

Price based on 1 page

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 2445 was drawn up by Technical Committee ISO/TC 59, *Building construction*.

It was approved in November 1971 by the Member Bodies of the following countries :

Belgium	Hungary	Romania
Canada	Ireland	South Africa, Rep. of
Chile	Israel	Spain
Czechoslovakia	Italy	Sweden
Denmark	Netherlands	Switzerland
Egypt, Arab Rep. of	New Zealand	Turkey
Finland	Norway	United Kingdom
Germany	Poland	U.S.S.R.

The Member Body of the following country expressed disapproval of the document on technical grounds :

France

Other ISO documents to be consulted :

ISO/R 1791, *Modular co-ordination – Vocabulary*.

ISO/R 1803, *Tolerances for building – Vocabulary*.

ISO 2444, *Joints in building – Vocabulary*. (At present at the stage of draft.)

Joints in building — Fundamental principles for design

0 INTRODUCTION

In order to achieve internationally agreed conventions for the study and design of joints, a series of International Standards is necessary.

At the present stage of knowledge it is only possible to produce International Standards on general principles; such principles fall under three main headings of properties :

- geometrical;
- structural;
- environmental.

It is necessary to distinguish between

- joints between components;
- joints between the parts of one component.

While general conventions will be directly applicable only to the joints between components, some aspects may also be relevant to joints between the parts of a component.

1 SCOPE AND FIELD OF APPLICATION

This International Standard outlines some basic principles for the design of joints in building.

2 BASIC PRINCIPLES

2.1 Geometrical properties of joints

A joint design shall include the clear specification of

a) the position of the joint profiles of the components in relation to the common joint reference plane;

b) the joint clearance based on the specified positions of the joined components and expressed as

- its size, in relation to the work sizes of the components, with a view to standard conventions for dimensional co-ordination;
- its maximum and minimum values to accommodate deviations occurring in the manufacture, setting out, erection and functioning of the components.

c) the jointing products in relation to the joint profiles.

2.2 Structural properties of joints

Joints shall be designed for all the dynamic and static conditions deriving from the joint situation within the building for the life of the components in the building.

2.3 Environmental properties of joints

Joints shall be designed to provide a performance such that the assembly formed by the components achieves the required overall performance.

In many cases, this implies a suitable continuity of the specified performances of the joined components during the life of these components in the building, taking into account maintenance.