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# Doors — Measurement of defects of general flatness of door leaves

UDC 69.028.1 - 41:620.1:531.717.81



## Co-operating organizations

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#### Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN title page, pages 2 to 4, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

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## EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 24

First edition June 1975

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Descriptors: Doors, surface properties, mechanical properties, geometric characteristics, flatness, dimensional measurement, verifying

English version

## Doors Measurement of defects of general flatness of door leaves

Portes. Mesurage des défauts de planéité générale des vantaux de portes Türen: Prüfung von Fehlern in der allgemeinen Ebenheit von Türblättern

This standard was accepted by CEN as a European Standard on 30 December 1974 whereby the members committed to accord to it the status of a national standard must do so without change. The details of the conditions under which members are so committed are given in the CEN constitution.

Up-to-date lists of national standards organizations which have adopted this European Standard, and relevant bibliographical references, may be obtained on application to the CEN Central Secretariat or to the sales office of any CEN member.

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## **CEN**

European Committee for Standardization Comité Européen de Normalisation Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

#### **Brief history**

European Standard EN 24 was drawn up by working group CEN/WG 33 "Technological tests for doors, windows, fastenings and their building hardware", the secretariat of which is held by AFNOR.

It is the first method of a series applicable to doors. Work on it was undertaken in June 1971 by the group of experts EG 3 "Door tests" created in February 1971 by the working group, and the method was accepted in 1972 by CEN/WG 33. This European Standard was adopted by CEN on 30 December 1974, on the strength of its acceptance by

Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Netherlands, Norway, Spain, Switzerland and United Kingdom.

the following member countries:

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#### 1 Scope

The present standard determines the method which has to be used to measure the defects of general flatness of door leaves.

#### 2 Field of application

This standard can be applied to all doors which are nominally flat and rigid.

#### 3 Definition

For the purpose of the present standard the concept of general flatness is limited to that of the coincidence of the edges of a face of a door leaf with a reference plane.

#### 4 Principle of the method

The measurement of the defects of general flatness of a door leaf consists in measuring on one face its twist as well as the longitudinal and transverse bending close to the edges.

#### 5 Operating method

The door leaf is mounted vertically so that there is no external restraint.

- **5.1 Measurement of twist.** The measurement of twist is carried out on one face of the leaf. Any three corners of this face determine a plane of reference. The deviation of the fourth corner is measured with respect to this plane. The measuring points shall not be more than 20 mm from the edges.
- **5.2** Measurement of bending. The measurement of bending(s) is carried out on one of the faces of the door leaf with respect to straight lines parallel to each edge and located 20 mm or less from each one. Measure the distance from the face to the straight lines.

#### 6 Accuracy of measurement

The twist and bending(s) are to be measured with a maximum uncertainty of  $\pm$  0.5 mm.

#### 7 Statement of results

The results are to be expressed to the nearest millimetre, 0.5 mm being rounded down.

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#### National Appendix A

The United Kingdom participation in the preparation of this European Standard came under the authority of the Building Divisional Council. The following organizations were involved in the work on this standard:

Aluminium Window Association

Association of Builders' Hardware Manufacturers

**British Plastics Federation** 

British Woodwork Manufacturers' Association

Department of the Environment, Building Research Establishment

Department of the Environment, Housing and Construction

Department of the Environment, Property Services Agency

Fibre Building Board Development Organization Ltd.

Flat Glass Manufacturers' Association

Greater London Council

Incorporated Association of Architects and Surveyors

Institution of Fire Engineers

Interdepartmental Construction Development Group

Metal Window Federation of Great Britain

Modular Society

Royal Institute of British Architects

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