

Door leaves — General and local flatness — Measurement method

The European Standard EN 952:1999 has the status of a
British Standard

ICS 91.060.50

National foreword

This British Standard is the English language version of EN 952:1999.

The UK participation in its preparation was entrusted by Technical Committee B/538, Doors, windows, shutters, hardware and curtain walling, to Subcommittee B/538/2, Doors, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

This British Standard forms part of a package of standards on doors which will not become fully effective until all standards in the package have been published and any superseded standards have been withdrawn. The date of withdrawal for national standards will be agreed within CEN and will be notified.

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Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 and 3 and a back cover.

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English version

Door leaves — General and local flatness — Measurement method

Vantaux de portes — Planeités générale et locale — Türblätter — Allgemeine und lokale Ebenheit —
Méthode de mesure Meßverfahren

This European Standard was approved by CEN on 21 July 1999.

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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

Foreword

This European Standard has been prepared by Technical Committee CEN/TC 33, Doors, windows, shutters and building hardware, the Secretariat of which is held by AFNOR.

This European Standard supersedes EN 24:1974.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2000, and conflicting national standards shall be withdrawn at the latest by February 2000.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

This draft standard is one of a series of standards for doors.

This standard has been prepared taking into account EN 24:1974 and prEN 224, and supersedes both.

1 Scope

This standard can be applied to all rectangular door leaves.

The standard specifies the method to be used to measure the deviations in general and local flatness of door leaves.

In this standard the concept of local flatness deviation is limited to defects considered to be prejudicial to the appearance of the door leaf.

2 Apparatus

2.1 Measurement equipment for general flatness

A *vertically mounted rigid frame*, on which is attached four reference points forming a rectangular reference plane, appropriate to the size of door leaf to be tested.

A *straight reference bar*, capable of spanning the height of the door leaf.

A *dial or digital gauge*, accurate to 0,01 mm, or *feeler gauges*.

2.2 Measurement equipment for local flatness

A *dial or digital gauge*, accurate to 0,01 mm mounted at the centre of a 200 mm long straight reference bar.

NOTE For non-laboratory testing (e.g. on site) it is acceptable to use a 200 mm long straight reference bar and feeler gauges.

3 Test specimens

Test specimens shall be stored and tested in a non-destructive environment within the ranges of 15 °C to 30 °C and 25 % to 75 % relative humidity.

4 Procedure

4.1 General flatness measurement of twist

Position the reference points to occur (20 ± 5) mm in from the edges of each corner of the door leaf, when mounted with its long edges horizontal.

Place the door leaf vertically on a long edge against the reference plane so that without restraint it makes contact with three corners of the reference plane.

Measure the deviation of the fourth corner of the door leaf from the fourth corner of the reference plane, to the nearest 0,1 mm.

4.2 General flatness measurement of bending

With the door leaf mounted vertically, position the straight reference bar along the face of the door leaf, parallel to and not more than 20 mm in from one edge. Measure the maximum deviation of the face of the door leaf from the reference bar, to the nearest 0,1 mm.

Repeat the procedure for the other edges of the door leaf.

4.3 Local flatness measurement

The door leaf is to be supported without restraint.

With the 200 mm long reference bar and dial or digital gauge, measure any visually apparent deviations from local flatness on the face of the door leaf, to the nearest 0,05 mm.

Repeat the procedure for the other face of the door leaf.

NOTE The test may be carried out with the door leaf in the horizontal or vertical plane.

5 Expression of results

Record:

- the measured value of twist and maximum deviations in bending for each edge of the door leaf;
- the position and measured value of any apparent deviations in local flatness for each face of the door leaf.

6 Test report

The test report shall contain the following information:

- a) reference to this standard;
- b) all necessary details to identify the door leaf;
- c) all relevant details concerning the type, specified dimensions, materials, form and construction of the door leaf;
- d) laboratory storage and testing conditions;
- e) the results expressed as in clause 5;
- f) name of testing laboratory;
- g) date of test.

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