

# Doors — Climatic influences — Requirements and classification

The European Standard EN 12219:1999 has the status of a British Standard

ICS 91.060.50

## National foreword

This British Standard is the official English language version of EN 12219:1999.

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.

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standards on doors which will not become fully effective until all standards in the package have been published and any superseded standards have been withdrawn.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.

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

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### Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 5 and a back cover.

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### Amendments issued since publication

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English version

## Doors - Climatic influences - Requirements and classification

Portes - Influences climatiques - Exigences et classification

Türen – Klimaeinflüsse – Anforderungen und Klassifizierung

This European Standard was approved by CEN on 20 September 1999.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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## 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 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2000, and conflicting national standards shall be withdrawn at the latest by May 2000.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 standard is one of a series of standards for doors. The classification relates to the test method to be published in prEN 1294 and prEN 1121-2.

This standard presents a partial classification for doors, restricted to the aspects of behaviour under humidity variations in successive uniform climates and behaviour between two different climates.

## 1 Scope

This standard applies to door leaves and door sets tested in accordance with prEN 1121-2 and prEN 1294.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

prEN 12519	Doors and windows – Terminology
prEN 1026	Windows and doors - Air permeability - Test method
EN 1530	Door leaves - General and local flatness – Tolerance classes
prEN 12217	Doors - Operating forces – Classification
prEN 12046-2	Operating forces - Test method – Part 2 : Doors
prEN 1294	Windows and doors – Determination of the behaviour under humidity variations in successive uniform climates – Door leaves
prEN 1121-2	Behaviour between two different climates - Test method - Part 2 : Doors

## 3 Definitions

For the purposes of this European Standard the definitions given in prEN 12519 apply together with those given hereafter :

**3.1 twist** : Spiral distortion in the plane of a door leaf.

**3.2 bow** : Curvature in the direction of the height of a door leaf.

**3.3 cup** : Curvature in the direction of the width of a door leaf.

## 4 Requirements

Requirements are based either on occurrence of damage on the test specimen and if relevant on the compliance of performance.

### 4.1 Damage

There shall be no visible cracking or other defects to the finish (delamination, loose surface covering etc.) and no degradation of materials, joints and fixing of hardware is allowed.

### 4.2 Compliance with performance (door sets)

Prior to and after the climatic test the specimen shall achieve a certain class in the operation of its hardware and if relevant in air permeability. The climatic test is satisfactory if the test specimen performances vary within specified limits.

#### 4.2.1 Operating forces

A door set tested according to prEN 12046-2 shall achieve at least the class of prEN 12217 reached before the test between different climates.

#### 4.2.2 Air permeability

A door set tested according to prEN 1026 shall achieve at least the class of prEN 12217 reached before the test between different climates.

## 5 Classification

### 5.1 General

The classification is based on the amplitude of the deformation.

### 5.2 Application to door leave

The door leave supplied without frame or as part of a door set shall be classified according to table 1. These deformations shall not be exceeded. This applies to a specimen tested in successive uniform climates as well as to specimen tested between two different climates.

**Table 1 : Maximum permissible deformation**

Test parameter	Class 0 (x) (in mm)	Class 1 (x) (in mm)	Class 2 (x) (in mm)	Class 3 (x) (in mm)
Twist, <b>T</b>	*	8,0	4,0	2,0
Bow, <b>B</b>	*	8,0	4,0	2,0
Cup, <b>C</b>	*	4,0	2,0	1,0
Local flatness	Door leave supplied without frame and door leave or as part of a door set shall meet the requirements of EN 1530			
<p>* No requirement  x Test climate defined in prEN 1121-2 and/or prEN 1294  <b>T</b> The final twist  <b>B</b> The absolute difference between final and initial twist or bow or the actual absolute final twist or bow whichever is the greater  <b>C</b> The final cup</p>				

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