

BS EN 12217:2015



BSI Standards Publication

# Doors — Operating forces — Requirements and classification

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**National foreword**

This British Standard is the UK implementation of EN 12217:2015. It supersedes BS EN 12217:2003 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee B/538, Doors, windows, shutters, hardware and curtain walling.

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

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English Version

**Doors - Operating forces - Requirements and classification**Portes - Forces de manoeuvre - Prescriptions et  
classificationTüren - Bedienungskräfte - Anforderungen und  
Klassifizierung

This European Standard was approved by CEN on 12 March 2015.

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## Foreword

This document (EN 12217:2015) has been prepared by Technical Committee CEN/TC 33 “Doors, windows, shutters, building hardware and curtain walling”, 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of an identical text or by endorsement, at the latest by October 2015, and conflicting national standards shall be withdrawn at the latest by October 2015.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 12217:2003.

Compared with EN 12217:2003, the following changes have been made:

- a) Terms and definitions have been revised;
- b) clarification on how the final total classification is obtained from different results;
- c) one new class 5 has been added in Table 1;
- d) a new Clause 5 “use of historical data” has been added.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## 1 Scope

This European Standard is applicable to hinged/pivoted and sliding doorsets with latches, for pedestrian use. It defines the classification of the test results for the forces and/or torques to open/close doors and to engage/release and lock/unlock the building hardware using a key or handle, after testing in accordance with EN 12046-2.

It is only applicable to the manual operation of doorsets.

The classification of forces for doorsets with self-closing devices engaged is excluded from this test method. It is also not applicable to doorsets with special hardware, e.g. emergency exit devices.

The tests are applicable to doorsets of any material.

The operation of some glazed doors (door high windows) involves hardware with latches and may be classified in accordance with this European Standard.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 12046-2:2000, *Operating forces — Test method — Part 2: Doors*

EN 12519, *Windows and pedestrian doors — Terminology*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 12519 and the following apply.

### 3.1

#### **doorset**

complete unit consisting of the door frame and the door leaf or leaves supplied, with the essential building hardware and seals

### 3.2

#### **hand operated building hardware**

building hardware operated by means of a hook grip made with the fingers in an active role and the thumb in a passive role; the proximal and distal interphalangeal joints are flexed around the handle

Note 1 to entry: See EN 1005-1:2001+A1:2008, 3.7.2.

### 3.3

#### **finger operated hardware**

hardware operated by means of a grip made with the thumb and the forefinger

Note 1 to entry: See EN 1005-1:2001+A1:2008, 3.7.1.

## 4 Classification

When tested in accordance with EN 12046-2, a doorset shall be classified in accordance with Table 1. The final total class of operating forces/torques of doors results from lowest class obtained among the particular tested forces or torques.

**Table 1 — Classification of operating forces and torques**

Resistance to:	Class 0	Class 1	Class 2	Class 3	Class 4	Class 5
Closing force or force to commence motion, maximum value (N)	— <sup>a</sup>	75	50	25	10	50
Hand operated building hardware <sup>b</sup>						
— Maximum torque (Nm)	—	10	5	2,5	1	5
— Maximum force (N)	—	100	50	25	10	50
Finger operated building hardware <sup>b</sup>						
— Maximum torque (Nm)	—	5	2,5	1,5	1	1,5
— Maximum force (N)	—	20	10	6	4	6
<sup>a</sup> No requirements.						
<sup>b</sup> The higher measured value of force or torque according to EN 12046-2 determines the class.						

NOTE For the higher operating forces in Classes 1 and 2, the suitability of the hardware (e.g. keys, locks, lock cylinder, handles) needs to be ensured.

## 5 Use of historical data

Results of already performed tests according to EN 12046-2:2000 may be used for classification.

Classifications according to EN 12217:2003 resulting in Classes 0 to 4 need not be reclassified according to this European Standard.

## Bibliography

- [1] EN 1005-1:2001+A1:2008, *Safety of machinery — Human physical performance — Part 1: Terms and definitions*





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