



BSI Standards Publication

**Industrial, commercial and garage doors  
and gates — Mechanical aspects —  
Requirements and test methods**

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## National foreword

This British Standard is the UK implementation of EN 12604:2017+A1:2020. Together with BS EN 12453:2017+A1:2021, it supersedes BS EN 12635:2002+A1:2008, which is withdrawn. It supersedes BS EN 12604:2017, which is withdrawn.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to CEN text carry the number of the CEN amendment. For example, text altered by CEN amendment A1 is indicated by A1 A1.

The UK participation in its preparation was entrusted to Technical Committee B/538/5, Industrial and commercial garage doors and gates.

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

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English Version

## Industrial, commercial and garage doors and gates - Mechanical aspects - Requirements and test methods

Portes et portails industriels, commerciaux et  
résidentiels - Aspects mécaniques - Exigences et  
méthodes d'essai

Tore - Mechanische Aspekte - Anforderungen und  
Prüfverfahren

This European Standard was approved by CEN on 14 August 2017 and includes Amendment 1 approved by CEN on 9 November 2020.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

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## European foreword

This document (EN 12604:2017+A1:2020) 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 June 2021 and conflicting national standards shall be withdrawn at the latest by June 2021.

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

This document includes Amendment 1 approved by CEN on 9 November 2020.

This document supersedes A1 EN 12604:2017 A1.

The start and finish of text introduced or altered by amendment is indicated in the text by tags A1 A1.

Compared with EN 12604:2000 and EN 12605:2000, the following changes have been made:

- a) EN 12604 has been merged with EN 12605; as EN 12605:2000 will be withdrawn;
- b) limitation of the scope to manually operated doors;
- c) cancellation of relationships to Regulation (EU) N°305/2011 and Machinery Directive 2006/42/EC (Annex ZA and ZB deleted);
- d) revision of document structure (Clause 4 and Clause 5);
- e) sorting and summary of requirements (Clause 4);
- f) revision of informative Annexes in accordance to Clause 4 of this standard;
- g) editorial revision.

This document is one of a series of supporting standards for industrial, commercial and garage doors and gates, which are identified in EN 13241.

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

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## Introduction

This document has been prepared to meet the needs of manufacturers and users, with the primary purpose of providing design and performance for mechanical aspects of industrial, commercial and garage doors and gates used by vehicles accompanied or driven by persons.

With the aim of clarifying the intention of this document and avoiding doubts when reading it, it was assumed that clarification occurred between all involved parties (manufacturer, professional installer, user, etc.) concerning:

- components to be maintained and kept in good working order;
- the intended use, the type of users and the place of use of the door;
- all parts of door installations, whether fixed or moving, including the fixing and assembling means, to be in all respects of good construction, suitable material, adequate strength and free from obvious defects for their intended working life;
- the design to be in accordance with European technical rules taking into account the most unfavourable forces occurring during the operation and all failure modes.

## 1 Scope

This European Standard specifies mechanical requirements and test methods for manually operated doors, gates and barriers, intended for installation in areas in the reach of persons, and for which the main intended use is giving safe access for goods and vehicles accompanied or driven by persons in industrial, commercial or residential premises.

This European Standard also covers manually operated vertically moving commercial doors such as rolling shutters and rolling grilles, used in retail premises which are mainly provided for goods protection.

This document applies only to doors which are not part of the load carrying structure of the building.

It does not apply to:

- lock gates and dock gates;
- doors on vehicles;
- doors mainly for the retention of animals unless they are at the site perimeter;
- doors intended for pedestrian use;
- railway barriers.

Whenever the term “door” is used in this document, it is deemed to cover the full scope of types and variances of doors, gates and barriers defined by the scope of 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 12433-1, *Industrial, commercial and garage doors and gates — Terminology — Part 1: Types of doors*

EN 12433-2, *Industrial, commercial and garage doors and gates — Terminology — Part 2: Parts of doors*

EN 12385-4, *Steel wire ropes — Safety — Part 4: Stranded ropes for general lifting applications*

EN 12600:2002, *Glass in building — Pendulum test — Impact test method and classification for flat glass*

EN 13241, *Industrial, commercial, garage doors and gates — Product standard, performance characteristics*

EN 13411-2, *Terminations for steel wire ropes — Safety — Part 2: Splicing of eyes for wire ropes slings*

EN 13411-3, *Terminations for steel wire ropes — Safety — Part 3: Ferule secured eyes*

EN 13411-6, *Terminations for steel wire ropes — Safety — Part 6: Asymmetric wedge socket clevis*

EN 61032:1998, *Protection of persons and equipment by enclosures — Probes for verification (IEC 61032:1997)*