



SLOVENSKI STANDARD
SIST EN 12453:2017/oprA1:2019
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Vrata v industrijske in javne prostore ter garažna vrata - Varnost pri uporabi pogonskega mehanizma - Zahteve in preskusne metode - Dopolnilo A1

Industrial, commercial and garage doors and gates - Safety in use of power operated doors - Requirements and test methods

Tore - Nutzungssicherheit kraftbetätigter Tore - Anforderungen und Prüfverfahren

iTeh STANDARD PREVIEW

Portes et portails industriels, commerciaux et résidentiels - Sécurité d'utilisation des portes et portails motorisés - Exigences et méthodes d'essai

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ICS:

91.060.50	Vrata in okna	Doors and windows
91.090	Konstrukcije zunaj stavb	External structures

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EUROPEAN STANDARD
NORME EUROPÉENNE
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English Version

Industrial, commercial and garage doors and gates - Safety in use of power operated doors - Requirements and test methods

Portes et portails industriels, commerciaux et
résidentiels - Sécurité d'utilisation des portes et
portails motorisés - Exigences et méthodes d'essai

Tore - Nutzungssicherheit kraftbetätigter Tore -
Anforderungen und Prüfverfahren

This draft amendment is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 33.

This draft amendment A1, if approved, will modify the European Standard EN 12453:2017. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

This draft amendment was established by CEN 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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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

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

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EN 12453:2017/prA1:2019 (E)**European foreword**

This document (EN 12453:2017/prA1:2019) 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 document is currently submitted to the CEN Enquiry.

This document has been prepared under a standardization request given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

1 Modification to Clause 1, Scope

Replace the 1st paragraph with the following:

“This document specifies requirements and test methods for the safety in use of power operated industrial, commercial and garage 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.”.

2 Modifications to Clause 2, Normative references

a) *Replace*

“prEN 12604:2014, *Industrial, commercial and garage doors and gates — Mechanical aspects — Requirements and test methods*”

<https://standards.iteh.ai/catalog/standards/sist/b5098c23-9032-47e0-8b2c-35a9c6a1e7f1/sist-en-12453-2017-opra1-2019>

with “EN 12604:2017, *Industrial, commercial and garage doors and gates — Mechanical aspects — Requirements and test methods*”.

b) *Accordingly, replace in the whole document “prEN 12604:2014” with “EN 12604:2017”.*

c) *Delete reference “EN 12635:2002+A1:2008, Industrial, commercial and garage doors and gates — Installation and use” the reference in the text of which is overwritten by Modification 23 (7.1).*

3 Modification to Clause 3, Terms and definitions

Replace term and definition 3.1 with the following:

”3.1

domestic garage door

door used on a domestic garage which is provided for one single household only and where the door does not protrude into an area in reach of general public”.

4 Modifications to 4.1, General

c) *Change NOTE 1 into normative text and replace NOTE 2 into NOTE.*

d) *Replace in the last indent “public access area” with “areas accessible by general public”.*

- e) *Delete in last paragraph* “used for one household only and which do not protrude onto a public access area”.

5 Modification to 4.2.1, General

Replace the existing text with the following:

“A hazard exists:

- between the main closing edge of any door and an opposing edge, and between secondary closing edges of hinged, folding, tilting and sliding doors and opposing edges;
- between closing edges and obstacles within the closing area of the leaf;
- between leaves passing each other;
- between leaves and the perimeter of openings in leaves and fixed parts in the vicinity;

Other surfaces, e.g. the ground, should be taken into consideration.

- at parts of the leaf which protrude;
- at moving parts of the drive or drive unit which are capable of causing injury;
- at gaps other than main closing gaps which vary in size and are accessible during the leaf movement.

The hazard can be present during the initial impact, the period after the impact and persist because a person can be held between the leaf and the surrounding fixed parts.

Hazards caused by reversed movement should also be taken into consideration.”

6 Modification to 4.5.3, Hazards caused by imprisonment

Delete “,” after “escape”.

7 Modification to 5.1.1, General requirements

Replace the existing text with the following:

“Power operated doors shall comply with the safety requirements and/or protective/risk reduction measures of this clause, taking full account of the factors listed in 4.1. In addition, the machine shall be designed according to the principles of EN ISO 12100:2010 for any hazards which are not dealt with by this document.

Power operated doors shall additionally comply with the mechanical requirements of EN 12604 unless otherwise specified.

Electrical equipment comprising the safety-related parts of the control system which are exposed to outdoor conditions shall be at least IP44 according to EN 60529.”

8 Modification to 5.1.2, Safety Function performed by control system

Replace the existing text with the following:

“The combined safety-related parts of a control system (SRP/CS) which perform the safety function shall be at least PL “c” with the minimum of category 2 according to EN ISO 13849-1 subject to specific

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exclusions made in this standard. The safety function shall be checked at the latest at one end position of the door leaf.

The safety-related parts of a control system (SRP/CS), include the processing of the signal:

- from the sensing unit of the sensitive protective equipment to the Output Signal Switching Device (OSSD) including the connection between the sensing unit and the drive unit;
- of travel limiting devices;
- of hold to run devices (the device itself need not meet category 2);
- of anti-drop devices (the device itself need not meet category 2);
- of slack cables detecting devices (the device itself need not meet category 2).

When mechanical systems are used in conjunction with other technologies EN ISO 13849-2 should be taken into account.

Well-tried components can be used in SRP/CS for a safety-related application based on the application of well-tried safety principles.

Components which do not meet category 2 need not be tested according to EN ISO 13849-1 when based on well-tried safety principles.

Safety related parts of a control system which perform the safety function of electrical equipment in compliance with the relevant requirements of EN 60335-2-95 or EN 60335-2-103 are considered to comply with the requirements of this subclause (5.1.2)."

9 Modification to 5.1.3, Minimum level of safeguarding at the main closing edge

Add after last paragraph the following text:

"Where vulnerable persons may be present (eg the infirm, elderly or children, as identified by risk assessment taking into account the factors identified by 4.1), non-contact means E should be selected in preference to the C and D means (C, D and E all as described by this subclause), to the extent that the technology and application permits.

Where vulnerable persons may be present and avoidance of contact is not possible, impact forces as low as possible below the maximums permitted by Annex A for the C means shall be employed, to the extent that the technology and application permits for the correct operation of the door."

10 Modification to 5.2.1.1, General

Replace last paragraph with:

"For non-automatic operated domestic garage doors it is acceptable to safeguard only the hazard generated by the movement of the main closing edge."

11 Modification to 5.2.1.7, Electro-Sensitive Protective Equipment (ESPE)

Delete second indent without replacement:

"

- the adjustment can only be done by using a tool";

12 Modification to 5.2.2, Safeguarding against hazards caused when persons can travel with the door

Replace the existing heading and text with the following:

“5.2.2 Safeguarding against drawing-in caused when persons can travel with the door

When a person can travel with the door (either horizontally or vertically moving), the door movement shall be stopped or reversed protecting any part of a person from possible hazards existing, e.g. at the lintel or other fixed parts of the building or parts of the mechanism of the door. This hazard is considered to exist if apertures or ledges which allow a person to travel with the door are located less than 2,5 m above the floor, or any other permanent access level.

Protective equipment shall avoid danger by meeting one or a combination of measures specified in 5.2.1.3, 5.2.1.5, 5.2.1.6 and 5.2.1.7.

The apertures are considered to allow persons to travel with the door if test probe B according to EN 61032 can penetrate into the aperture in the door leaf by more than 20 mm deep (measured at horizontal projection to the door).

Ledges are considered to allow persons to travel with the door if they are protruding more than 40 mm from the door (measured at horizontal projection to the door).

To avoid drawing-in caused by travelling with the door:

- either the door shall not be able to lift or move a mass of 20 kg (or 40 kg for doors intended to be installed in areas out of reach of children), from the closed position;
- or if the door is able to lift or move a mass of 20 kg (or 40 kg for doors intended to be installed in areas out of reach of children), the door shall be stopped by a protective equipment when any person is lifted or moved and before any part of the person reaches any hazardous locations, e.g. at the lintel or other fixed parts of the building or parts of the mechanism of the door.”

13 Modification to 5.2.3, Safeguarding against impact hazard

Replace the second indent with:

“

- ensuring by electro-sensitive protective equipment according to 5.2.1.7, if tested as described in Annex D, or by guards according to 5.2.1.3 that a person cannot be touched by a moving door leaf.”

14 Modification to 5.3.5, Hazards caused by imprisonment

Replace “,” with””; after “cause”.

15 Modification to 5.3.6, Supply disconnection

Replace in 2nd indent “and shall have” with “which shall have”.

16 Modification to 5.4.5, Human physical strength for manual operation of the door leaf

Replace reference to “prEN 12604:2014” with “EN 12604:2017”.

17 Modifications to 5.5.1, Pass doors

a) Replace 1st paragraph with: