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Supersedes
DIN EN 1627:2011-09

Pedestrian doorsets, windows, curtain walling, grilles and shutters – Burglar resistance – Requirements and classification; English version EN 1627:2021, English translation of DIN EN 1627:2021-11

Türen, Fenster, Vorhangfassaden, Gitterelemente und Abschlüsse – Einbruchhemmung – Anforderungen und Klassifizierung; Englische Fassung EN 1627:2021, Englische Übersetzung von DIN EN 1627:2021-11

Blocs-portes pour piétons, fenêtres, façades rideaux, grilles et fermetures – Résistance à l'effraction – Prescriptions et classification; Version anglaise EN 1627:2021, Traduction anglaise de DIN EN 1627:2021-11

Document comprises 50 pages

Translation by DIN-Sprachendienst.

In case of doubt, the German-language original shall be considered authoritative.

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A comma is used as the decimal marker.

National foreword

This document (EN 1627:2021) has been prepared by Technical Committee CEN/TC 33 “Doors, windows, shutters, building hardware and curtain walling” (Secretariat: AFNOR, France).

The responsible German body involved in its preparation was *DIN-Normenausschuss Bauwesen* (DIN Standards Committee Building and Civil Engineering), Working Committee NA 005-09-02 AA “Burglar resistance”.

For current information on this document, please go to DIN’s website (www.din.de) and search for the document number in question.

Amendments

This standard differs from DIN EN 1627:2011-09 as follows:

a) normative references have been updated;

b) the Scope has been extended to include electromechanical building hardware products;

c) the number of resistance classes (RC 1/RC 1 N) has been clarified;

d) Clause 6 “Building hardware” has been revised;

e) subclause 8.2 “Non-key operated lockable hardware” has been added;

f) Annex B has been deleted;

g) Annex C has been rewritten and updated;

h) Annex E “Marking” has been added;

i) National Annexes NA and NB have been revised;

j) Table NA.2 has been revised;

k) Table NA.7 has been revised;

l) the Bibliography of the National Annex NB has been updated.

Previous editions

DIN 18103: 1983-11
DIN V 18054: 1989-09, 1991-12
DIN V 18103: 1992-03
DIN V ENV 1627: 1999-04
DIN 18106: 2003-09
DIN EN 1627: 2011-09

National Annex NA
(informative)

Instructions for use

NA.1 Interchangeability of cylinders and security plates

This clause deals with the interchangeability of cylinders and security plates in resistance classes RC 1 N to RC 4. The requirements for cylinders and security plates for burglar-resistant windows, doors and additional shutters refer to European Standards. In the field of building hardware, the European Standards do not regulate the connection dimensions between the security plate, lock and cylinder. In order to ensure interchangeability of cylinders and security plates, Table NA.1 contains requirements for building hardware for the individual resistance classes based on existing DIN Standards that have a comparable resistance. To ensure interchangeability, it is advisable to use plates that meet the requirements of Table NA.1 when applying this standard. Furthermore, higher-quality combinations of locking cylinders and security plates are also possible.

Table NA.1 — Assignment of the individual resistance classes to cylinders and security plates within the scope of interchangeability

Resistance class	**Cylinders**[a]			**Security plates**[a]
DIN EN 1627:2021-11	DIN 18252:2006-12	DIN 18252:2018-05		DIN 18257:2015-06
		Class		
Resistance class	Class[b]	Locking security (digit 3)	Attack resistance (digit 4)	Resistance class[c]
RC 1 N	21-,31-,71-BZ	4	C	ES 0[d]
RC 1	21-,31-,71-BZ	4	C	ES 0[d]
RC 2 N	21-,31-,71-BZ	4	C	ES 0[d]
RC 2	21-,31-,71-BZ	4	C	ES 1
RC 3	21-,31-,71-BZ	4	C	ES 2
RC 4	42-, 82-BZ	6	D	ES 3
As an alternative				
RC 1 N	21-,31-,71-BS[e]	4[e]	A[e]	ES 1-ZA
RC 1	21-,31-,71-BS[e]	4[e]	A[e]	ES 1-ZA
RC 2 N	21-,31-,71-BS[e]	4[e]	A[e]	ES 1-ZA
RC 2	21-,31-,71-BS[e]	4[e]	A[e]	ES 1-ZA
RC 3	21-,31-,71-BS[e]	4[e]	A[e]	ES 2-ZA
RC 4	42-, 82-BS[e]	6[e]	B[e]	ES 3-ZA

Resistance class	Cylinders[a]			Security plates[a]
DIN EN 1627:2021-11	DIN 18252:2006-12	DIN 18252:2018-05		DIN 18257:2015-06
		Class		
Resistance class	Class[b]	Locking security (digit 3)	Attack resistance (digit 4)	Resistance class[c]

[a] The replacement of cylinders and security plates in tested burglar-resistant building components is permissible in resistance classes RC 1 to RC 4 without an expert opinion from the testing body if the installation means and the support cam length of the security plate are equivalent and proof of the cylinder or the security plate in compliance with Table NA.1 is available.

[b] BZ = *mit Bohrschutz und Ziehschutz* (en: with drilling protection and pulling protection); BS = *mit Bohrschutz* (en: with drilling protection).

[c] ZA = *mit Zylinderabdeckung* (en: with cylinder cover).

[d] The resistance class ES 0 does not include drilling protection in the area of the tour pin. If drilling protection is required in this area, the use of resistance class ES 1 is recommended.

[e] Only for locking cylinders in conjunction with plates that have a cylinder cover.

NA.2 Quality monitoring

To ensure quality, proof of compliance with the requirements can be provided on a voluntary basis through certification.

NOTE When advising on crime prevention, the police recommend that only products which have been certified by an accredited certification body are used; they also issue corresponding lists of manufacturers.

NA.3 Labelling

Burglar-resistant components according to this standard should be permanently marked, for example by a sign in the rebate area. The identification plate shall be easily legible in German, have a minimum size of 105 mm × 18 mm, and shall contain at least the following information.

a) burglar-resistant component DIN EN 1627 with date of issue;

b) achieved resistance class;

c) manufacturer's product name;

d) certification mark, if applicable;

e) manufacturer;

f) test report number ....., date .....;

g) inspection body (encrypted if necessary);

h) year of manufacture.

Labelling of grilles:

Grilles should be labelled with the manufacturer's identification number, for example by stamping the number on the grille. It should be possible to identify the grille via a certificate of compliance.

NA.4 Installation/examples of suitable walls/assembly certificate

Burglar-resistant components are intended for installation in walls suitable for this purpose (see Table NA.2 to Table NA.4). Special conditions in respect of the masonry opening, e.g. cavity walls, shall be indicated as well as the position of the element in the reveal or the type of masonry.

Table NA.2 — Assignment of resistance classes of burglar-resistant building components to solid walls

Resistance class of the component according to DIN EN 1627	Surrounding walls					
	made of masonry according to DIN 1053-1 or DIN EN 1996 series of standards				made of reinforced concrete according to DIN EN 206/standards series DIN 1045 or standards series DIN EN 1992	
	Wall thickness (without render) mm	Compressive strength class of the masonry units (SFK)	Raw density class of the masonry units (RDK)	Mortar group and external renders[g]	Nominal thickness mm min.	Compress-ive strength class min.
RC 1 N RC 1 RC 2 N RC 2	≥ 115	≥ 12	-	min. MG II/DM	≥ 100	C12/15
	≥ 240[b,h]	≥ 6[b,h]	≥ 0,8[b,h]	min. MG II/DM and external render[f]		
	≥ 360[b]	≥ 6[b]	≥ 0,50[b]	min. MG II/DM and external render[d]		
	≥ 360[c]	≥ 2[c]	≥ 0,40[c]	min. MG II/DM and external render[e]		
RC 3	≥ 115	≥ 12	-	min. MG II/DM	≥ 120	C12/15
	≥ 240 [b,h]	≥ 6[b,h]	≥ 0,8[b,h]	min. MG II/DM and external render[f] and suitable parapet design[i]		
	≥ 360[b]	≥ 6[b]	≥ 0,50[b]	min. MG II/DM and external render[f] and suitable parapet design[i]		
RC 4	≥ 240	≥ 12	-	min. MG II/DM	≥ 140	C12/15
RC 5	≥ 240	≥ 20	≥ 1,8	DM	≥ 140	C12/15
RC 6	≥ 240[a]	≥ 20	≥ 1,8	DM	≥ 140	C12/15

[a] Applicable to formats of height 238 mm, 498 mm, 623 mm and 648 mm.

[b] Valid for high precision clay masonry units according to DIN EN 771-1 or a general building authority approval. Installation of the component in the middle third of the wall.

[c] Valid for masonry units made of concrete (with dense and porous aggregates) in accordance with DIN EN 771-3 or a general building authority approval. Installation of the component in the middle third of the wall.

[d] A minimum of 20 mm lightweight render type II of compressive strength CS II is required on the outside.

[e] A minimum of 20 mm lightweight render type I or type II of compressive strength CS II is required on the outside.

Resistance class of the component according to DIN EN 1627	Surrounding walls					
	made of masonry according to DIN 1053-1 or DIN EN 1996 series of standards				made of reinforced concrete according to DIN EN 206/standards series DIN 1045 or standards series DIN EN 1992	
	Wall thickness (without render) mm	Compressive strength class of the masonry units (SFK)	Raw density class of the masonry units (RDK)	Mortar group and external renders[g]	Nominal thickness mm min.	Compress-ive strength class min.
f At least 20 mm lightweight render type II of compressive strength CS II is required on the outside and also at least 5 m-m lightweight rendering mortar of compressive strength CS III with inserted reinforcing mesh as finishing plaster.						
g The external render is to be applied on the wall surface and in the reveal up to the window frame.						
h Applicable only to vertically perforated masonry units according to DIN EN 771-1 in conjunction with DIN-20000-401 with the perforations HLzB, HLzE, PHLzB and PHLzE.						
i A suitable parapet design is, for example, installing a thermal insulation lintel turned the other way round, or installing a solid window sill, etc.						

Table NA.3 — Assignment of resistance classes of burglar-resistant building components to aerated concrete walls

Aerated concrete wall			
Resistance class	Nominal thickness	Compressive strength of the masonry units	Design
RC 1 N/RC 1	≥ 170 mm	≥ 4	adhesive bonding
RC 2 N/RC 2	≥ 170 mm	≥ 4	adhesive bonding
RC 3	≥ 240 mm	≥ 4	adhesive bonding