

This is a preview of "BS EN 1630:2011+A1:2...". Click here to purchase the full version from the ANSI store.

**BS EN 1630:2011+A1:2015**



**BSI Standards Publication**

**Pedestrian doorsets, windows,  
curtain walling, grilles and  
shutters — Burglar resistance  
— Test method for the  
determination of resistance  
to manual burglary attempts**

**bsi.**

...making excellence a habit.™

This is a preview of "BS EN 1630:2011+A1:2...". [Click here to purchase the full version from the ANSI store.](#)

This British Standard is the UK implementation of EN 1630:2011+A1:2015. It supersedes BS EN 1630:2011, which is withdrawn.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.

BSI, as a member of CEN, is obliged to publish EN 1627, EN 1628, EN 1629, and EN 1630 as British Standards. However, attention is drawn to the fact that, during the development of these European Standards, the UK committee voted against the approval of EN 1627, EN 1628, and EN 1630, and appealed against the ratification of all four standards.

This is due to the committee's belief that the standards do not address all known burglary modi operandi and do not account for lock picking within any of their scopes. Users are to be drawn, in this case, to the existence of PAS 24, which provides enhanced security performance requirements for door assemblies.

The UK committee is opposed to the manual test methods included in EN 1630 due to the lack of repeatability and reproducibility.

The UK participation in its preparation was entrusted by Technical Committee B/538, Doors, windows, shutters, hardware and curtain walling, to Subcommittee B/538/1, Windows and doors.

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

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2016.

Published by BSI Standards Limited 2016

ISBN 978 0 580 90445 5

ICS 13.310; 91.060.50

**Compliance with a British Standard cannot confer immunity from legal obligations.**

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 June 2011.

#### **Amendments/corrigenda issued since publication**

Date	Text affected
29 February 2016	Implementation of CEN amendment A1:2015

This is a preview of "BS EN 1630:2011+A1:2...". Click here to purchase the full version from the ANSI store.

## EUROPÄISCHE NORM

December 2015

ICS 13.310; 91.060.50

Supersedes EN 1630:2011

English Version

## Pedestrian doorsets, windows, curtain walling, grilles and shutters - Burglar resistance - Test method for the determination of resistance to manual burglary attempts

Blocs-portes pour piétons, fenêtres, façades rideaux, grilles et fermetures - Résistance à l'effraction - Méthode d'essai pour la détermination de la résistance aux tentatives manuelles d'effraction

Türen, Fenster, Vorhangfassaden, Gitterelemente und Abschlüsse - Einbruchhemmung - Prüfverfahren für die Ermittlung der Widerstandsfähigkeit gegen manuelle Einbruchversuche

This European Standard was approved by CEN on 2 December 2010 and includes Amendment approved by CEN on 17 November 2015.

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.

CEN members are the national standards bodies of 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 United Kingdom.



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

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

<b>Contents</b>	<b>Page</b>
European foreword.....	4
<b>1 Scope .....</b>	<b>6</b>
<b>2 Normative references .....</b>	<b>6</b>
<b>3 Terms and definitions .....</b>	<b>7</b>
<b>4 Apparatus and test team.....</b>	<b>8</b>
4.1 Test rig .....	8
4.2 Test team.....	8
4.2.1 Personnel .....	8
4.2.2 Composition of the test team .....	8
4.2.3 Essential capabilities of the test team members .....	8
4.2.4 Training .....	9
4.3 Measurement and recording devices.....	9
4.3.1 Measuring equipment.....	9
4.3.2 Video recording .....	9
4.4 Tolerances .....	10
4.5 Sub-frame.....	10
<b>5 Test specimen.....</b>	<b>10</b>
5.1 General.....	10
5.2 Preparation and examination of the specimen .....	11
<b>6 Procedure.....</b>	<b>12</b>
6.1 General.....	12
6.2 Test room climate .....	12
6.3 Areas of attack.....	12
6.3.1 General.....	12
6.3.2 Construction products with moving elements .....	12
6.3.3 Fixed construction products .....	12
6.4 Attack side and attack height.....	13
6.5 Pre-test.....	13
6.6 Main test .....	13
6.7 Failure criteria .....	13
<b>7  Tool sets .....</b>	<b>14</b>
7.1 General.....	14
7.2 Tool set A1 resistance class 1 (see Figure A.1) – Application of the tool set A1 in resistance class 1.....	14
7.3 Tool set A2 resistance class 2 (see Figure A.2) – Application of the tool set A2 in resistance class 2.....	15
7.4 Tool set A3 resistance class 3 (see Figure A.3) – Application of the tool set A3 in resistance class 3.....	15
7.5 Tool set A4 resistance class 4 (see Figure A.4) – Application of the tool set A4 in resistance class 4.....	16
7.6 Tool set A5 resistance class 5 (see Figure A.5) – Application of the tool set A5 in resistance class 5.....	16

This is a preview of "BS EN 1630:2011+A1:2...". Click here to purchase the full version from the ANSI store.

7.7	Tool set A0 resistance class 6 (see Figure A.6) – Application of the tool set A0 in resistance class 6 .....	17
8	Test report .....	17
	<b>Annex A (normative) Tool sets .....</b>	<b>19</b>
A.1	Tool set A1 .....	19
A.2	Tool set A2 .....	20
A.3	Tool set A3 .....	21
A.4	Tool set A4 .....	22
A.5	Tool set A5 .....	23
A.6	Tool set A6 .....	24
	<b>Annex B (normative) Test sequence for manual test of resistance classes 2 to 6 .....</b>	<b>25</b>
B.1	Test sequence for manual test of resistance classes 2 to 6 .....	25
	<b>Annex C (normative) Example of test equipment Dimensions in mm .....</b>	<b>26</b>
	<b>Annex D (informative) Examples of mounting arrangements .....</b>	<b>27</b>
D.1	Examples of mounting arrangements for doorsets .....	27
D.2	Examples of mounting arrangements for windows .....	29
D.3	Examples of mounting arrangements for wing and folding shutters .....	30
D.4	Examples of mounting arrangements for guide rails and roller shutters into the test rig .....	33
D.5	Examples of mounting arrangements for grilles into the test rig .....	36
	<b>Bibliography .....</b>	<b>37</b>

## European foreword

This document (EN 1630:2011+A1:2015) 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 June 2016, and conflicting national standards shall be withdrawn at the latest by June 2016.

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 includes Amendment 1 approved by CEN on 2015-11-17.

This document supersedes  $\boxed{A_1}$  EN 1630:2011  $\langle A_1 \rangle$ .

The start and finish of text introduced or altered by amendment is indicated in the text by tags  $\boxed{A_1}$   $\langle A_1 \rangle$ .

This European Standard is one of a series of standards for burglar resistant pedestrian doorsets, windows, curtain walling, grilles and shutters. The other standards in the series are:

- EN 1627:2011, *Pedestrian doorsets, windows, curtain walling, grilles and shutters — Burglar resistance — Requirements and classification*;
- $\boxed{A_1}$  EN 1628:2011+A1:2015  $\langle A_1 \rangle$ , *Pedestrian doorsets, windows, curtain walling, grilles and shutters — Burglar resistance — Test method for the determination of resistance under static loading*;
- $\boxed{A_1}$  EN 1629:2011+A1:2015  $\langle A_1 \rangle$ , *Pedestrian doorsets, windows, curtain walling, grilles and shutters — Burglar resistance — Test method for the determination of resistance under dynamic loading*.

This standard is a revision of, and supersedes  $\boxed{A_1}$  EN 1630:2011  $\langle A_1 \rangle$ . The last two other standards in this series are revisions of, and supersede  $\boxed{A_1}$  EN 1628:2011  $\langle A_1 \rangle$  and  $\boxed{A_1}$  EN 1629:2011  $\langle A_1 \rangle$  respectively.

This revision incorporates grilles and curtain walling in the range of application.

The manual test described in this standard covers the areas of vulnerability not suitably assessed by the static loading and dynamic loading tests described in  $\boxed{A_1}$  EN 1628:2011+A1:2015  $\langle A_1 \rangle$  and  $\boxed{A_1}$  EN 1629:2011+A1:2015  $\langle A_1 \rangle$ . Certain basic security requirements for the locks, furniture and cylinders are covered by the requirements detailed in Table 3 of EN 1627:2011. These security characteristics are not re-assessed in this test standard and the attack methods and test times have been limited to reflect this.

The use of the tools detailed in the various tools sets is described in this standard. This has the advantage of improving the reproducibility of the test.

This is a preview of "BS EN 1630:2011+A1:2...". [Click here to purchase the full version from the ANSI store.](#)

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 specifies a test method for the determination of resistance to manual burglary attempts in order to assess the burglar resistant characteristics of pedestrian doorsets, windows, curtain walling, grilles and shutters. It is applicable to the following means of opening: Turning, tilting, folding, turn-tilting, top or bottom hung, sliding (horizontally and vertically) and rolling as well as fixed constructions.

This European Standard does not directly cover the resistance of locks and cylinders to attack with picking tools. It also does not cover the attack of electric, electronic and electromagnetic operated burglar resistant construction products using attack methods that might defeat these characteristics.

It is acknowledged that there are two aspects to the burglar resistance performance of construction products, their normal resistance to forced operation and their ability to remain fixed to the building. Due to the limitation of reproducing the fixing methods and building construction in a laboratory environment this aspect is not fully covered by the standard. This is particularly true with products built into a building. The performance of the fixed part of the product is evaluated using a standard sub frame. It is the manufacturer's responsibility to ensure that guidance on the fixing of the product is contained in the mounting instructions and that this guidance is suitable for the burglar resistance class claimed for the product. As with the other referenced standards this specification uses a standard sub frame and the product is mounted according to the manufacturers' instructions. An example for the contents of the manufacturer's installation instructions is given in Annex A of EN 1627:2011. This test method does not evaluate the performance of the fixing to the building.

This European Standard does not apply to doors, gates and barriers, intended for installation in areas in the reach of persons, and for which the main intended uses are giving safe access for goods and vehicles accompanied or driven by persons in industrial, commercial or residential premises, as covered by EN 13241-1.

## 2 Normative references

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

EN 356:1999, *Glass in building - Security glazing - Testing and classification of resistance against manual attack*

EN 1303:2005, *Building hardware - Cylinders for locks - Requirements and test methods*

EN 1627:2011, *Pedestrian doorsets, windows, curtain walling, grilles and shutters - Burglar resistance - Requirements and classification*

EN 1628:2011+A1:2015, *Pedestrian doorsets, windows, curtain walling, grilles and shutters - Burglar resistance - Test method for the determination of resistance under static loading*

EN 1629:2011+A1:2015, *Pedestrian doorsets, windows, curtain walling, grilles and shutters - Burglar resistance - Test method for the determination of resistance under dynamic loading*

EN 1906:2010, *Building hardware - Lever handles and knob furniture - Requirements and test methods*