

BS EN 581-1:2017



BSI Standards Publication

Outdoor furniture — Seating and tables for camping, domestic and contract use

Part 1: General safety requirements

bsi.

National foreword

This British Standard is the UK implementation of EN 581-1:2017. It supersedes BS EN 581-1:2006 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee FW/0/2, Domestic and Contract Furniture.

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

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Outdoor furniture - Seating and tables for camping, domestic and contract use - Part 1: General safety requirements

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domestique, collectif et de camping - Partie 1 :
Exigences générales de sécurité

Außenmöbel - Sitzmöbel und Tische für den Camping-,
Wohn- und Objektbereich - Teil 1: Allgemeine
sicherheitstechnische Anforderungen

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Contents	Page
European foreword	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 Test probes	5
Figure 1 — Measuring probes	5
5 Safety requirements	5
5.1 General	5
5.2 Tubular components	5
5.3 Shear and squeeze points	5
5.3.1 Shear and squeeze points when erecting, adjusting and folding away	5
5.3.2 Shear and squeeze points under the influence of powered mechanisms	5
5.3.3 Shear and squeeze points during use	6
6 Test report	6
Annex A (informative) Schematic presentation of requirements and conditions concerning shear and squeeze points	7
Figure A.1 — Schematic presentation of requirements and conditions concerning shear and squeeze points	7
Annex B (informative) Rationale for injury of fingers	8

European foreword

This document (EN 581-1:2017) has been prepared by Technical Committee CEN/TC 207 “Furniture”, the secretariat of which is held by UNI.

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of an identical text or by endorsement, at the latest by September 2017, and conflicting national standards shall be withdrawn at the latest by September 2017.

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 supersedes EN 581-1:2006.

Compared to EN 581-1:2006, the main modifications are:

- clarification of the definitions (camping, domestic and contract use) taken from Annex B and put in Clause 3 (so Annex B will be superseded),
- test method is deleted, edges and corners are modified to take into account accessible part during use (accessible parts for seating and tables are defined),
- tubular components are defined, requirements for gaps and holes removed,
- addition of an Annex B (informative) as a rationale to explain the risks covered with requirements in Clause 5.

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1 Scope

This part of EN 581 specifies the general safety requirements for outdoor seating and tables for camping, domestic and contract for use by adults, without regard to materials, design/construction or manufacturing processes.

It does not apply to seating for spectator facilities.

It does not include requirements for the durability of upholstery materials, castors, reclining and tilting mechanisms and seat height adjustment mechanisms.

Mechanical safety requirements are covered by EN 581-2 for seating and EN 581-3 for tables.

Annex A (informative) is a schematic presentation of requirements and conditions concerning shear and squeeze points.

Annex B (informative) is a rationale concerning fingers injury.

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 581-2:2015, *Outdoor furniture - Seating and tables for camping, domestic and contract use - Part 2: Mechanical safety requirements and test methods for seating*

EN 581-3:2007, *Outdoor furniture - Seating and tables for camping, domestic and contract use - Part 3: Mechanical safety requirements and test methods for tables*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

automatic locking mechanism

mechanism which engages without guidance by the user and prevents unintended movement

3.2

shear and squeeze point

shear and squeeze points exist if the distance between two accessible parts moving relative to each other can be more or equal than 7 mm and less or equal than 18 mm in any position during movement

3.3

outdoor furniture for contract use

outdoor furniture intended for non-private use in places with public access

3.4

outdoor furniture for domestic use

outdoor furniture intended for private use in places without public access

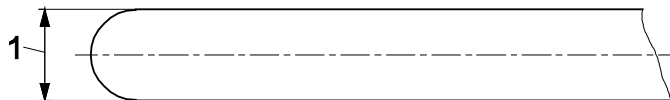
3.5

outdoor furniture for camping use

outdoor furniture foldable or knock-down and light-weight, intended for use in connection with camping and travelling

4 Test probes

There shall be three cylindrical probes with diameters of $7_{-0,1}^{+0}$ mm, $12_{-0}^{+0,1}$ mm and $18_{-0}^{+0,1}$ mm with hemispherical ends, see Figure 1.



Key

1 $\varnothing 7_{-0,1}^{+0}$ mm, $\varnothing 12_{-0}^{+0,1}$ mm and $\varnothing 18_{-0}^{+0,1}$ mm

Figure 1 — Measuring probes

5 Safety requirements

5.1 General

In order to avoid physical injury when the product is in its intended position of use, all edges and corners shall be rounded, chamfered or otherwise protected. This applies to:

- Seating: Edges of the seat, back rest and arm rests and any part of the bottom surface of the seat at a distance less than 120 mm from any edge, where a finger can commonly access;
- Tables: Table tops, any part of the underside of the top surface at a distance less than 500 mm from any edge below the table, where a knee and/or an arm can commonly access.

All other parts shall be free from burrs, sharp edges and sharp points.

Movable and adjustable parts shall be designed so that injuries and inadvertent operation are avoided.

It shall not be possible for any load bearing part of the furniture to come loose unintentionally.

All parts which are lubricated to assist sliding shall be designed to protect users from lubricant stains when in normal use.

5.2 Tubular components

There shall be no accessible holes in the ends of tubular components with a diameter between 7 mm to 12 mm and with a depth more or equal to 10 mm.

The bottom of tubular legs in contact with the floor shall be closed or capped, however, holes in them are allowed as long as they are not between 7 and 12 mm.

These requirements shall be assessed using the test probes (Clause 4).

5.3 Shear and squeeze points

5.3.1 Shear and squeeze points when erecting, adjusting and folding away

Unless 5.3.2 or 5.3.3 are applicable, shear and squeeze points that are created only during erecting, adjusting or folding away are acceptable providing the user can be assumed to be in control of his/her movements and to be able to cease applying the force immediately on experiencing pain.

5.3.2 Shear and squeeze points under the influence of powered mechanisms

There shall be no accessible shear and squeeze points created by parts of the furniture operated by powered mechanisms, e.g. mechanical springs and gas lifts.

This requirement shall be assessed using the test probes (Clause 4).

5.3.3 Shear and squeeze points during use

There shall be no accessible shear and squeeze points created by loads applied during normal use. Shear and squeeze points are not acceptable if there is a risk of injury created by the weight of the user during normal movements and actions, e.g. attempting to move the seating by lifting the seat or by adjusting the backrest.

This requirement shall be assessed using the test probes (Clause 4).

For loungers, the loads applied during normal use are the loads used for the following mechanical tests in Table 1 of EN 581-2:2015:

- Test 2: Additional seat and leg rest static load;
- Test 3: Seat and back durability;
- Test 4: Additional seat durability;
- Test 5: Durability on back rest mechanism.

For other seating, the loads applied during normal use are the loads used for the following mechanical tests in Table 2 of EN 581-2:2015:

- Test 2: Seat front edge static;
- Test 3: Combined seat and back durability;
- Test 4: Durability test on seating with a multi-position back.

For tables, the loads applied during normal use are the loads used for the following mechanical tests in Table 1 of EN 581-3:2007:

- Test 1: Vertical static load on main surface;
- Test 4: Vertical static load on ancillary surface;
- Test 5: Horizontal durability test.

6 Test report

The test report shall include at least the following information:

- a) reference to this part of the European Standard (EN 581-1:2017);
- b) details of piece of furniture tested;
- c) any defects observed before testing;
- d) the test results according to the applicable clauses;
- e) compliance with the requirements;
- f) the name and address of the test facility;
- g) the date of test.

Annex A (informative)

Schematic presentation of requirements and conditions concerning shear and squeeze points

Figure A.1 is a Schematic presentation of requirements and conditions concerning shear and squeeze points.

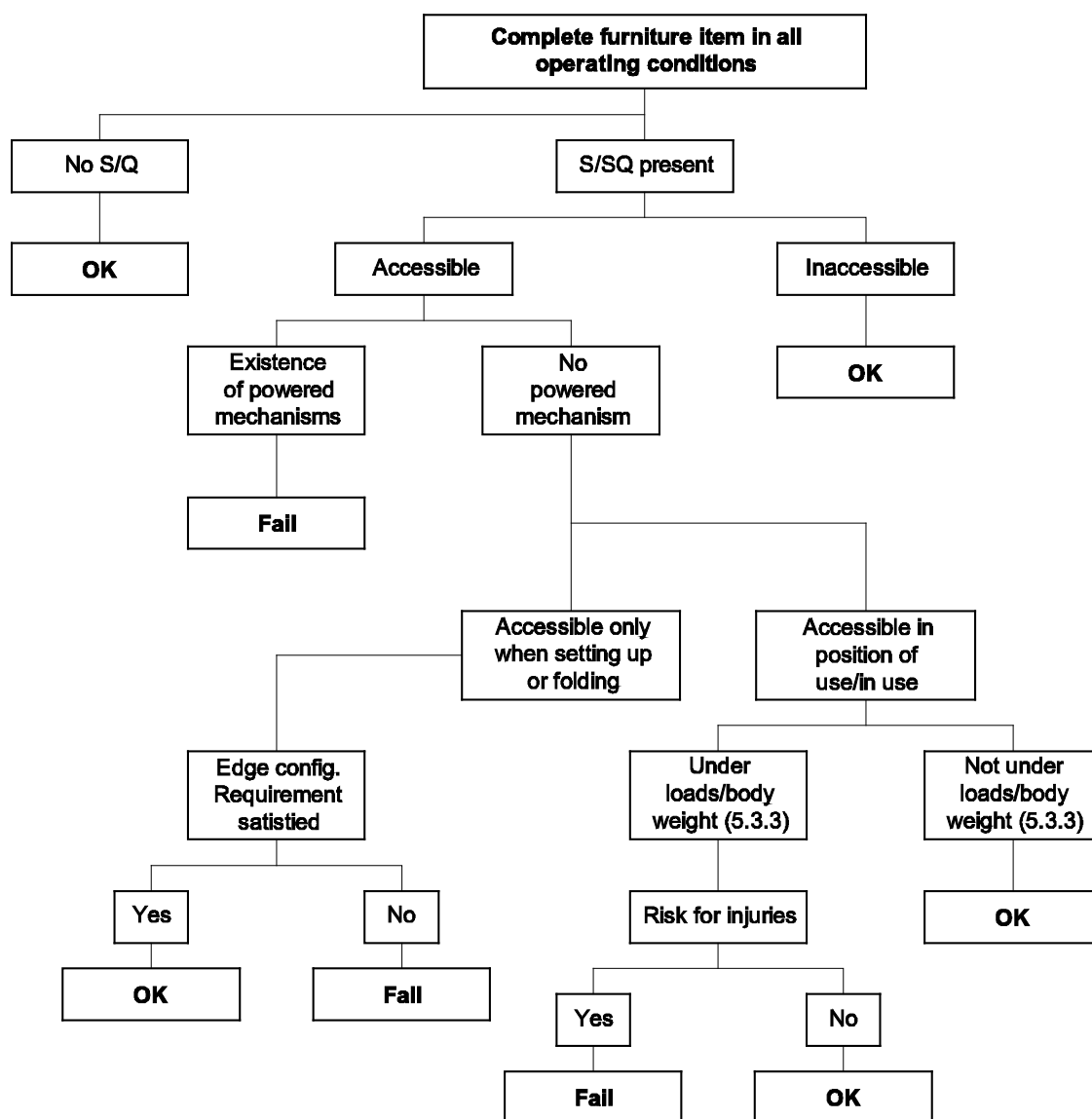


Figure A.1 — Schematic presentation of requirements and conditions concerning shear and squeeze points

Annex B
(informative)

Rationale for injury of fingers

Clause	Title	Risk cover
5.1	General	Risk of cutting a part of the user's body when in contact with the product
5.2	Tubular components	Finger entrapment in holes on tubular component and damage on floors
5.3	Shear and squeeze points	Shearing and squeezing of fingers, thumbs excluded

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