
**Caravan awnings — Functional
requirements and test methods**

Auvents de caravane — Exigences de fonctionnement et méthodes d'essai

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

International Standard ISO 8937 was prepared by Technical Committee ISO/TC 83, *Sports and recreational equipment*, Subcommittee SC 2, *Camping tents*.

This second edition cancels and replaces the first edition (ISO 8937:1991), which has been technically revised.

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Caravan awnings — Functional requirements and test methods

1 Scope

This International Standard specifies the functional requirements for awnings for caravans and motor caravans. "Caravans" in this International Standard always means caravans and motor caravans.

It applies to the different types of awnings described in clause 5.

The safety requirements in ISO 8936 also apply to the awnings covered by this International Standard.

Fabric requirements are not considered in this International Standard.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 2062:1993, *Textiles — Yarns from packages — Determination of single-end breaking force and elongation at break.*

ISO 2409:1992, *Paints and varnishes — Cross-cut test.*

ISO 5081:1977, *Textiles — Woven fabrics — Determination of breaking strength and elongation (Strip method).*

ISO 5912:1993, *Camping tents.*

3 Terms and definitions

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

3.1

caravan awning

tent attached to a leisure accommodation vehicle to extend its living area

[ISO 7418:1989, 3.06]

3.2

base area

area limited by the outside walls of the awning and the caravan wall

**3.3
perimeter**

distance along the awning channel usually fitted around the edge of the caravan side when the caravan is parked level with all the corner steadies in place and where the dimensions are measured from ground level at both ends

See Figure 1.

**3.4
awning depth at ground level**

horizontal distance between the base of the caravan side wall and the base of the front edges of the awning

See Figure 2.

**3.5
awning depth at roof level**

horizontal distance between the caravan wall and the awning front wall at roof level

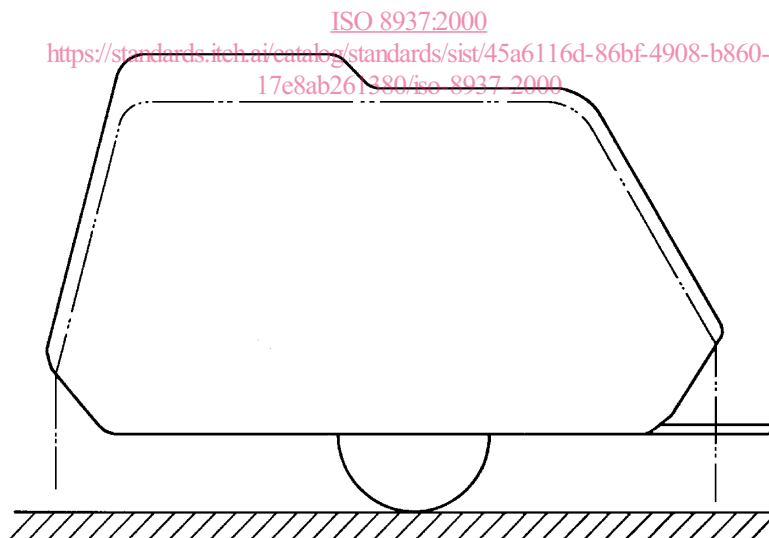
See Figure 2.

**3.6
overall depth**

horizontal distance between the caravan side wall and the foremost part of the awning, measured at right angles

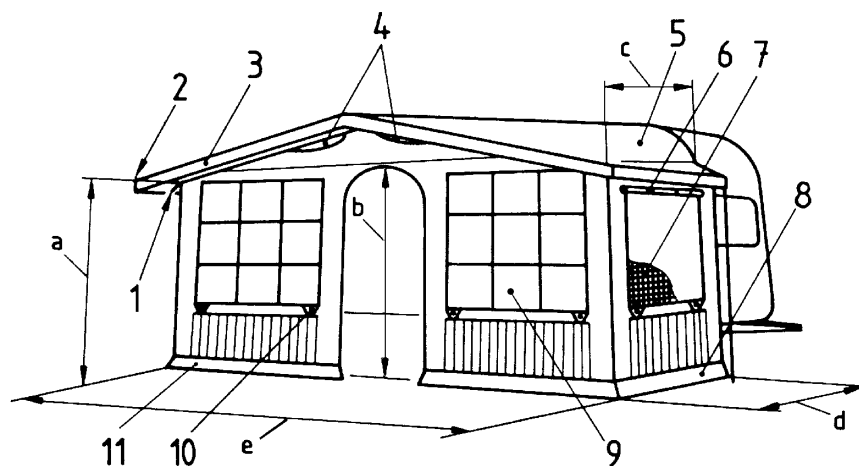
4 Additional terms

Additional terms used in this International Standard are illustrated in Figure 2.



Key
Perimeter: _____

Figure 1 — Perimeter

**Key**

- 1 Roof guying point
- 2 Pins
- 3 Canopy
- 4 Ventilators (see ISO 7152)
- 5 Roof

- 6 Window cover
- 7 Window ventilation
- 8 Mud wall
- 9 Plastic window
- 10 Wall guying point
- 11 Ground anchorage

- a Standing height
- b Entrance height
- c Awning depth at roof level
- d Awning depth at ground level
- e Awning width

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Figure 2 — Illustration of additional terms used
<https://standards.iteh.ai/catalog/standards/sist/45a6116d-8661-4908-b860-17e8ab261380/iso-8937-2000>

5 Types

Type SN = snow awning (capable of bearing a heavy snow load).

Type R = residential awning (suitable for all seasons, capable of bearing a light snow load).

Type T = touring awning (suitable for touring under temperate weather conditions).

6 Requirements**6.1 Awning dimensions****6.1.1 Awning depth**

Type R awnings shall have a minimum awning depth at roof level of 200 cm, type T of 180 cm and type SN of 140 cm.

6.1.2 Awning width

Type SN awnings shall have a minimum width of 150 cm.

6.1.3 Entrance dimensions

At least one entrance shall have a minimum height measured from ground level of 170 cm at its highest point and a minimum width of 50 cm.

6.1.4 Standing height

The standing height for types R and T shall be a minimum of 180 cm, over 70 % of the base area.

6.1.5 Awning perimeter size

For each awning, the range of perimeters within which it fits shall be indicated.

6.2 Zip fasteners

The minimum transverse tear strength of the zip fasteners determined in accordance with 7.1 shall be

700 N for zip fasteners in all load-bearing outside walls (e.g. wind load-bearing walls);

300 N for zip fasteners of windows and window covers.

6.3 Frame assembly

6.3.1 The frame assembly shall be partly adjustable.

If two frame components are fitted into each other, the lower component shall not become detached when subjected to a force equal to twice its own weight in the vertical position.

The upper part of a joint shall overlap the lower part, to avoid the ingress of water.

6.3.2 Frames which are not connected by spring links or other means shall be permanently marked or supplied with a detailed frame plan.

6.3.3 When tested in accordance with 7.2.1, the longest straight part between two supports and including all joints in the main frame assembly of awning joints shall withstand a force F of 100 N.

6.3.4 Rigid frame-angled joints, when tested in accordance with 7.2.3, shall be free from damage or permanent deflection.

6.4 Guying and ground fastening

6.4.1 Ground fastening systems shall have a minimum breaking strength of 350 N, when tested in accordance with 7.3.

6.4.2 Awning roofs shall have at least one guying point at each front corner.

For type R awnings, fastenings for storm guys shall be provided at a suitable height (traditional window parapet) and shall be a maximum of 60 cm apart, excluding the width of the door.

When tested in accordance with 7.3, the guying system, including eyelet, upper and lower fastening and tensioning device (without ground tensioners), shall resist a minimum tensile force of 500 N.

NOTE A higher strength has been chosen for the guying system than for the fastening system, in order to provide resistance to ageing, as these parts cannot be replaced.

6.4.3 The distance between the ground fastening points shall not exceed 75 cm (type T), 65 cm (type R), 50 cm (type SN).

At the base of the zip fasteners, a method shall be provided to relieve the lateral tension on the zip.

6.5 Metallic parts

All metallic parts shall be corrosion-resistant. This requirement is fulfilled if, when tested in accordance with 7.2.4, the filter-paper does not discolour.

6.6 Awning attachment to the caravan

If the awning is provided with a channel cord it shall fit to the channel of the caravan.

When tested in accordance with 7.4, it shall not be possible to pull the channel cord out of the channel.

6.7 Environmental ventilation

Ventilation shall allow the air to circulate. Awnings with a coated roof shall be provided with a ventilator directly below the roof line.

6.8 Draught exclusion

6.8.1 External mud wall

The external mud walls where fitted shall have a minimum width of 30 cm and shall overlap where they join. It shall be possible to peg the external mud walls to the ground by means of pegs which are a maximum of 65 cm apart.

The external mud walls where fitted shall have pegging points and these shall be resistant to tearing. This condition is fulfilled if the pegging points withstand the test in 7.5 without damage.

6.8.2 Internal mud wall

Internal mud walls where fitted shall have a minimum width of 30 cm and shall overlap where they join.

6.8.3 Draught strip and wheel cover

The awning shall be supplied with a draught strip and a wheel cover which provide wind protection for the awning.

6.9 Window cover

The window cover shall overlap the window on all sides by at least 10 cm. The cover shall be provided with fastening points (e.g. toggles) around its edges which are a maximum of 35 cm apart vertically and of 90 cm apart horizontally.

NOTE In the case of zip fasteners, the overlap may be smaller.

6.10 Rain resistance

When testing in accordance with 7.6, no water shall penetrate the awning interior after a permissible light sprinkling during the first 120 s.

6.11 Resistance to roof load

Awnings type R and SN when tested in accordance with 7.2.2 shall withstand the following loads without damage or changes reducing the functional capacity.

Type R: 300 N/m²

Type SN: 1 500 N/m²