INTERNATIONAL STANDARD

ISO 5912

Third edition
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Camping tents

Tentes de camping

Reference number
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Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
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Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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 document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 5912 was prepared by Technical Committee ISO/TC 83, *Sports and recreational equipment*, Subcommittee SC 2, *Camping tents*.

This third edition cancels and replaces the second edition (ISO 5912:1993) and ISO 5912:1993/Amd.1:1998, which have been technically revised.

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Camping tents

1 Scope

This International Standard specifies the requirements on safety, performance and fitness for use of camping tents (called "tents" throughout the text).

It applies to types and classes of tents for camping and outdoor purposes as defined in 3.1.

NOTE For caravan awnings ISO 8936 and ISO 8937 apply. For terms relating to camping tents and caravan awnings, see ISO 7152.

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.

ISO 105-A02:1993, *Textiles — Tests for colour fastness — Part A02: Grey scale for assessing change in colour*

ISO 105-B04:1994, *Textiles — Tests for colour fastness — Part B04: Colour fastness to artificial weathering: Xenon arc fading lamp test*

ISO 139:—[1)], *Textiles — Standard atmospheres for conditioning and testing*

ISO 527-1:1993, *Plastics — Determination of tensile properties — Part 1: General principles*

ISO 527-3:1995, *Plastics — Determination of tensile properties — Part 3: Test conditions for films and sheets*

ISO 554:1976, *Standard atmospheres for conditioning and/or testing — Specifications*

ISO 1420:2001, *Rubber- or plastics-coated fabrics — Determination of resistance to penetration by water*

ISO 1421:1998, *Rubber- or plastics-coated fabrics — Determination of tensile strength and elongation at break*

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 2768-1:1989, *General tolerances — Part 1: Tolerances for linear and angular dimensions without individual tolerance indications*

ISO 4892-2:1994, *Plastics — Methods of exposure to laboratory light sources — Part 2: Xenon-arc sources*

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1) To be published. (Revision of ISO 139:1973)

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ISO 4995:2001, *Hot-rolled steel sheet of structural quality*

ISO 7152:1997, *Camping tents and caravan awnings — Vocabulary and list of equivalent terms*

ISO 7253:1996, *Paints and varnishes — Determination of resistance to neutral salt spray (fog)*

ISO 8570:1991, *Plastics — Film and sheeting — Determination of cold-crack temperature*

ISO 8936:2003, *Caravan awnings — Safety requirements*

ISO 8937:2000, *Caravan awnings — Functional requirements and test methods*

ISO 9073-4:1997, *Textiles — Test methods for nonwovens — Part 4: Determination of tear resistance*

ISO 10966:1994[2)], *Textiles — Fabrics for awnings and camping tents — Specification*

ISO 13934-1:1999, *Textiles — Tensile properties of fabrics — Part 1: Determination of maximum force and elongation at maximum force using the strip method*

ISO 13934-2:1999, *Textiles — Tensile properties of fabrics — Part 2: Determination of maximum force using the grab method*

ISO 13937-2:2000, *Textiles — Tear properties of fabrics — Part 2: Determination of tear force of trouser-shaped test specimens (single tear method)*

EN 12329:2000, *Corrosion protection of metals — Electrodeposited coatings of zinc with supplementary treatment on iron or steel*

3 Terms and definitions

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

3.1 Types and classes

3.1.1
sleeping tent (type S)
tents which are in principle used for sleeping purposes and divided into two classes

3.1.1.1
tents of type S, class st
standard-weight tents having a mass of > 2 kg plus 1 kg per person

3.1.1.2
tents of type S, class l
lightweight tents having a mass of ⩽ 2 kg plus 1 kg per person

3.1.2
touring tent (type T)
tent for residential purposes suitable for repeated pitching and striking down

NOTE Striking is the act of dismantling and packing away a tent.

2) Under revision.

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3.1.3
residential tent (type R)
tent for residential purposes for long-term pitching and not designed for regular pitching and striking, i.e. spring until autumn without snow load

3.2
pitching area
total area necessary to pitch the tent on the ground (including guy ropes)

3.3
base area
area, limited by the outer tent walls, which contact the ground, except the mud wall

3.4 usable area

3.4.1
living area of tents (types T and R)
the part of the base area of a tent designated for living

3.4.2
sleeping area
the part of the base area of a tent designated for sleeping

3.5
capacity
the number of adults for which the tent is designed

3.6
living room
the part of the tent which is designated for cooking, standing, sitting (table and chairs) as well as for storage, with the exception of the storage space

3.7
storage space
the part of the tent which is designated for depositing luggage and/or clothing

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4 Requirements

4.1 Overview

For an overview of requirements see Table 1.

Table 1 — Overview of requirements and corresponding clauses

Requirements	All types of tents	Only sleeping tents	Only touring tents	Only residential tents
Living room	4.2.2		4.3.2.1	4.3.3.1
Sleeping area	4.2.3	4.3.1.1	4.3.2.2	4.3.3.2
Storage space	4.2.4	4.3.1.2	4.3.2.3	4.3.3.3
Material connections	4.2.5			
Ground-sheet	4.2.6			
Mud wall				4.3.3.4
Window				4.3.3.5
Window-cover	4.2.7.1			4.2.7.1
Stability	4.2.8	4.3.1.3		4.3.3.6
Ventilation	4.2.9			
Insect protection	4.2.10			
Resistance to penetration by rain	4.2.11			
Design of the inner tent	4.2.12	4.2.12		
Tent exit	4.2.13			
Dimensional stability	4.2.14			
Fabric	4.2.1			
Material	4.2.6.4, 4.2.7.3			
Frame	4.2.15			
Zip fastener	4.2.16	4.3.1.4	4.3.2.5	4.3.3.7
Attachment device	4.2.17			
Tent and pole bag	4.2.18			
Advice to occupiers	4.2.19			
Accessories	4.2.20	4.3.1.5	4.3.2.6	4.3.3.8

4.2 General requirements

4.2.1 Fabrics

Tents shall be made from fabrics meeting the requirements specified in ISO 10966.

4.2.2 Living room

For requirements for the living room see 4.3.2.1 and 4.3.3.1.

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4.2.3 Sleeping area

For dimensions for the sleeping area see 4.3.1.1, 4.3.2.2 and 4.3.3.2. The sleeping area shall have a ground-sheet as specified in 4.2.6.

4.2.4 Storage space

All tents shall have a storage space suitable for the intended capacity.

4.2.5 Material connections

Material connections (e.g. by bonding or sewing) shall have at least the tensile strength of the fabrics connected when tested according to 5.7, and, in the case of different materials, that of the material having the lower tensile strength.

4.2.6 Ground-sheet

4.2.6.1 Form and height

The ground-sheet shall be in the form of an open box with a turned-up outer edge height of at least 10 cm.

4.2.6.2 Fastening

At least one ground fastening shall be provided for each corner. For entrance walls of inner tents having a width of more than 200 cm, an additional fastening shall be provided which can also be fixed at the lower edge of the cloth or directly above the ground.

The fastening shall be designed to enable pitching and dismantling of the tent at temperatures between – 5 °C and + 40 °C.

4.2.6.3 Protective measures

Points on the ground-sheet which are in contact with frame parts shall be suitably protected.

4.2.6.4 Material requirements

The materials used for ground-sheets shall comply with Tables 2 and 3.

Table 2 — Minimum requirements for ground-sheets

Property	Plastic foil		Coated fabrics	
	Requirement	Test method	Requirement	Test method
Resistance to tearing	2 daN	ISO 9073-4	3 daN	ISO 13937-2
Resistance against cold crack	a	a	a	a
Resistance to penetration by water	150 hPa	ISO 1420	150 hPa	ISO 1420
[a] For requirements and test method see ISO 10966.				

Table 3 — Minimum requirements for the tensile strength of ground-sheets

Materials with an elongation break of			Test method	
< 20 %	(20 to 200) %	> 200 %	Plastic foil	Coated fabrics
120 daN	65 daN	20 daN	ISO 527-3	ISO 1421

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4.2.7 External plastics materials

4.2.7.1 Window-covers

Windows which are not rainproof shall be provided with a window-cover which overlaps the window on all sides by at least 10 cm. On the periphery, the cover shall be provided with attachment points (e.g. toggles) at maximum intervals of 35 cm. These requirements do not apply when zip fasteners are used.

4.2.7.2 Mud walls and windows

For requirements see 4.3.3.4 and 4.3.3.5.

4.2.7.3 Material requirements

The material requirements shall be as specified in Table 4.

Table 4 — Minimum requirements for plastic windows, window-covers and mud walls

No.	Property	Requirement	Test method
1	Resistance to tearing	2 daN	ISO 9073-4
2	Elongation at break	200 %	ISO 527-3
3	Cold-crack temperature	– 20 °C	ISO 8570
4	Weatherability	see ISO 10966:1994, Table 8	ISO 4892-2
5	Colour fastness	Value 4	see 5.8
After testing in accordance with ISO 4892-2, the values measured for No. 1, 2 and 3 shall at least correspond to 85 % of the values required for the new product.			

4.2.8 Stability

4.2.8.1 The tent shall be provided with suitable attachment devices to secure it to the ground.

4.2.8.2 Provision shall be made for storm guys.

4.2.8.3 The pitched, fully pegged and guyed tent, with all doors and windows closed, shall be able to withstand a wind speed of 15 m/s in any direction. After application of the load, the tent shall return to its original shape and position without any damage.

The fulfilment of this requirement has to be verified by a suitable test or by calculation.

NOTE A specified test or calculation method was not available at the stage of developing this International Standard.

4.2.9 Ventilation

By the suitable choice of materials and product design, a tent shall enable a permanent circulation of air to reduce condensation.

Sufficiently large areas of inner tents for double skin tents, or the fabric used for a single skin tent shall be manufactured from a material permeable to water vapour (see ISO 10966).

In the case of double-skin tents, the space between the inner and outer tent shall be sufficient to provide effective ventilation.

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Single-skin sleeping tents made of non-breathable fabrics shall provide permanent openings totalling at least 100 cm^2 per person. These shall be situated as high as possible and on opposite sides of the tent.

4.2.10 Insect protection

All doors and openings in inner tents shall be protected against insects.

Permanent openings shall be secured by mosquito nets with a maximum hole size of 0,1 cm × 0,1 cm. Doors and openings for inner tents shall be insect proof when they are closed.

4.2.11 Resistance to penetration by rain

The resistance of the tent shall be such that no water penetrates the tent interior except a light mist during the first 2 min, when the rain test according to 5.6 is carried out.

The outer fabric of the tent shall not come into contact with the inner fabric unless designed to do so, e.g. pole sleeves of geodesic tents.

4.2.12 Design of the inner tent

Tents of type S, class I, shall have at least two pockets for small belongings attached to a wall.

The inner tent of all other types shall have at least one such pocket per person.

4.2.13 Tent exits

4.2.13.1 Tents with a capacity of four or more persons or a base area of more than 12 m^2 shall have an exit with a minimum area of 0,9 m^2 and a minimum width of 50 cm. Where two exits are provided, this size requirement only applies to the first.

4.2.13.2 Tent exits may be closed using a zip fastener (see 4.2.16) or any other system, provided that they can be opened easily from the bottom, if the exit is higher than 100 cm.

4.2.14 Dimensional stability of tents in synthetic fabrics

It shall be possible to take down the tent in a situation with a relative humidity of (0 to 5) %, without considerably more strength being required than with the higher relative humidity. Any parts of the tent intended to reduce the tension on the fabric can be used, if necessary.

Test according to 5.9.

4.2.15 Frame

4.2.15.1 All metal parts shall be such that there is no change at the end of the test according to 5.4, except a minor discolouration. In the case of enamelled or coated frame components, there shall be no infiltration under the varnish of more than 0,5 mm according to ISO 7253.

4.2.15.2 The frame parts shall be clearly marked to facilitate the pitching, the only exception to this being, if the frame parts for a tent can only be assembled in one form.

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

The tubular connection of the frame components to be fitted together shall have a minimum length of two times the outside diameter.

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4.2.15.3 For tents utilizing flexible poles, each pole that comes into contact with the ground shall be provided with an attachment device to secure the tent to the ground (storm guy), either directly connected with the pole through an opening, or in the form of a loop or similar. Where both ends of the flexible pole come into contact with the ground then an attachment device (storm guy) shall be provided at both sides of the pole.

4.2.16 Zip fasteners

The slider shall not be the same colour as the teeth and ribbon of the zip, unless a conspicuous handle of a different colour shall be attached to the slider.

In order to open the doors from inside and outside independently, the zip fasteners of doors shall have double tagged sliders.

4.2.17 Attachment devices

For resistance to corrosion of metal eyelets, see 4.2.15.

4.2.18 Tent and pole bags

4.2.18.1 At least one bag shall be supplied for the tent.

For tents of type S, class I, the bag shall be large enough for the tent without its frame assembly to be stuffed into it without folding.

The characteristics of the material used for the bag shall be at least in accordance with the specifications of fabrics for outer surfaces according to ISO 10966, except for waterproofness.

4.2.18.2 Separate bags shall be supplied for the frame assembly and the pegs.

4.2.19 Advice to occupiers

A permanent legible notice, at least in English and French, giving simple fire prevention advice shall be attached inside the tent in a position where it can be easily and readily seen.

It is recommended that the notice should also be written in the language of the country where the tent will be sold.

The minimum dimensions of the notice shall be 7 cm × 15 cm for each language.

The letters for the heading "Fire precautions" shall be at least twice as high as the letters for the remainder of the text.

The heading shall be in red letters, the remainder of the text shall be black on a white background.

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The following wording and layout shall be used:

a) English

Fire precautions

Camp safely. Follow these common-sense rules:

- Do not place hot appliances near the walls, roof or curtains
- Always observe the safety instructions for these appliances
- Never allow children to play near hot appliances
- Keep exits clear
- Make sure you know the fire precaution arrangements on the site

b) French

Précautions à prendre contre le feu

Pour faire du camping en toute sécurité, suivre ces règles pleines de bon sens:

- Ne pas placer d'appareils chauds à proximité des parois, du toit ou des rideaux
- Bien respecter les consignes de sécurité de ces appareils
- Ne jamais permettre aux enfants de jouer aux alentours des appareils chauds
- Dégager les entrées
- Se renseigner sur les dispositifs et mesures prévus sur le terrain en cas d'incendie

4.2.20 Accessories

Tents shall be supplied with accessories according to 4.3.1.5, 4.3.2.6 and 4.3.3.8.

4.3 Specific requirements for the different types of tent

4.3.1 Sleeping tents

4.3.1.1 Sleeping area

The sleeping area per person shall have the minimum dimensions given in Table 5 and Figure 1.

Table 5 — Dimensions of the sleeping area per person

Dimensions in centimetres

Tent of type S	l_1	l_2	l_3	l_4	l_5
class st	35	30	200	35	60
class I	30	30	190	30	55

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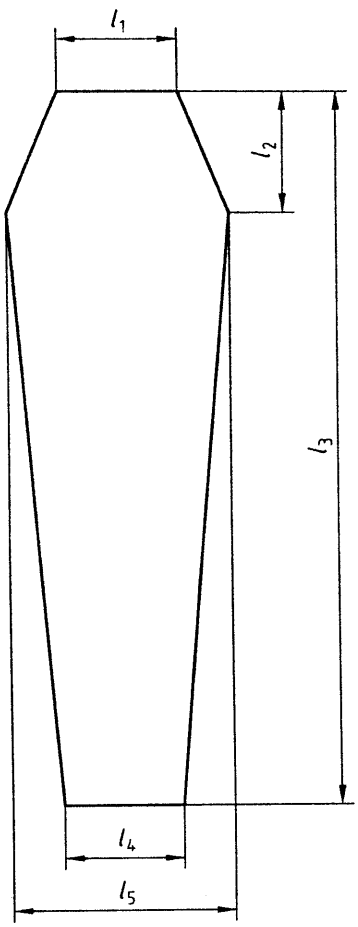

Figure 1 — Sleeping area per person

For tents of type S, class st, it shall be possible for at least one person to sit in tents designed for one to two persons, and for at least two persons to sit simultaneously in tents designed for three to four persons. This requirement is fulfilled if, when tested in accordance with 5.1, the dummies (according to Figure 2) do not touch the roof of the tent.

4.3.1.2 Storage space

For tents, based on the capacity of the tent, a space shall be added per person in which one dummy (according to Figure 3) can be placed in at least one position.

The storage space shall be accessible from within the sleeping area.

4.3.1.3 Stability

Frame components shall have a maximum length of 60 cm.

The tensile strength of ground tensioners shall be at least 350 N.

Tape loops shall be made from synthetic material.

The complete attachment system including pegs, eyelets, lower and upper attachments and tensioning device shall be able to resist a minimum tensile force of 350 N.

Test according to 5.5.

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4.3.1.4 Lateral strength of zip fasteners

When tested according to 5.3.1, the lateral strength shall be at least as specified in Table 6.

Table 6 — Minimum lateral strength of zip fasteners

Forces in newtons

Tents of type S		
Class st		Class I
outside	inside	
350	250	250

The average value of at least 5 measurements shall not be less than that given in Table 6. Individual values shall not be less than 75 % of the values given in this table.

4.3.1.5 Accessories

The accessories shall consist of the following parts:

a) one peg for each attachment point;

b) one guy for each attachment point, which permits lateral fixing at a distance of at least 100 cm (measured at the ground line);

c) one bag for pegs.

4.3.2 Touring tents

4.3.2.1 Living room

The living room shall allow the appropriate number of dummies, according to Figure 2, for the capacity of the tent to be arranged as though sitting round a table with a diameter of 70 cm, or a rectangular table of dimensions 60 cm by 80 cm.

4.3.2.2 Sleeping area

The sleeping area for each person shall have a length of at least 200 cm and a width of at least 65 cm, each measured at a height of 15 cm.

4.3.2.3 Storage space

The volume of the storage space shall be at least 80 litres per person, with a minimum height of at least 100 cm at one point.

4.3.2.4 Stability

The complete attachment system, including lower and upper attachments and tensioning device, shall be able to resist a minimum tensile force of 350 N.

4.3.2.5 Lateral strength of zip fasteners

When tested according to 5.3.1, the lateral strength of zip fasteners in the outer tent shall be at least 500 N, and in the window-cover and inner tent at least 300 N each.

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For each test, the average value of at least 5 measurements shall not be less than these specified values. Individual values shall not be less than 75 % of the specified values.

4.3.2.6 Accessories

The accessories shall consist of the following parts:

a) one peg for each attachment point and storm guy;

b) one guy for each attachment point, which permits lateral fixing at a distance of at least 100 cm (measured at the ground line);

c) one bag for pegs.

4.3.3 Residential tents

4.3.3.1 Living room

The base area of the living room shall be at least 2 m^2 per person up to a capacity of 4 persons, increased by 1 m^2 per additional person. Above at least 70 % of this area, the height of the living room shall be at least 180 cm. The base areas of the different parts of the living room shall be continuous.

4.3.3.2 Sleeping area

The sleeping area for each person shall have a length of at least 205 cm and a width of at least 70 cm, each measured at a height of 22 cm.

30 % of the sleeping area shall be at least 170 cm in height.

4.3.3.3 Storage space

The volume of the storage space shall be at least 80 litres per person, with a minimum height of at least 100 cm at one point.

4.3.3.4 Mud walls

The mud wall shall be cut to a width of at least 25 cm and shall overlap at the corners. It shall be possible to peg the mud walls to the ground on the outside at intervals of 65 cm.

4.3.3.5 Windows

If plastic materials are used for windows, at least one of these windows shall be made of transparent plastic material.

4.3.3.6 Stability

4.3.3.6.1 The complete attachment system including pegs, eyelets, lower and upper attachments and tensioning device shall be able to resist a minimum tensile force of 500 N.

4.3.3.6.2 The tensile strength shall be at least 500 N.

4.3.3.6.3 The distance between the ground tensioners shall not exceed 65 cm at any point, except in the entrance area where it shall not exceed 120 cm. The ends of the zip fasteners near the ground line shall be provided with fixtures to relieve the strain on the zip fasteners.

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4.3.3.7 Lateral strength of zip fasteners

When tested according to 5.3.1, the lateral strength of zip fasteners in the outer tent shall be at least 500 N and in the window-cover and inner tent at least 300 N each.

For each test, the average value of at least 5 measurements shall not be less than these specified values. Individual values shall not be less than 75 % of the specified values.

4.3.3.8 Accessories

The accessories shall consist of the following parts:

a) one peg for each attachment point and storm guy;

b) one guy for each attachment point, which permits lateral fixing at a distance of at least 100 cm (measured at the ground line);

c) one bag for pegs.

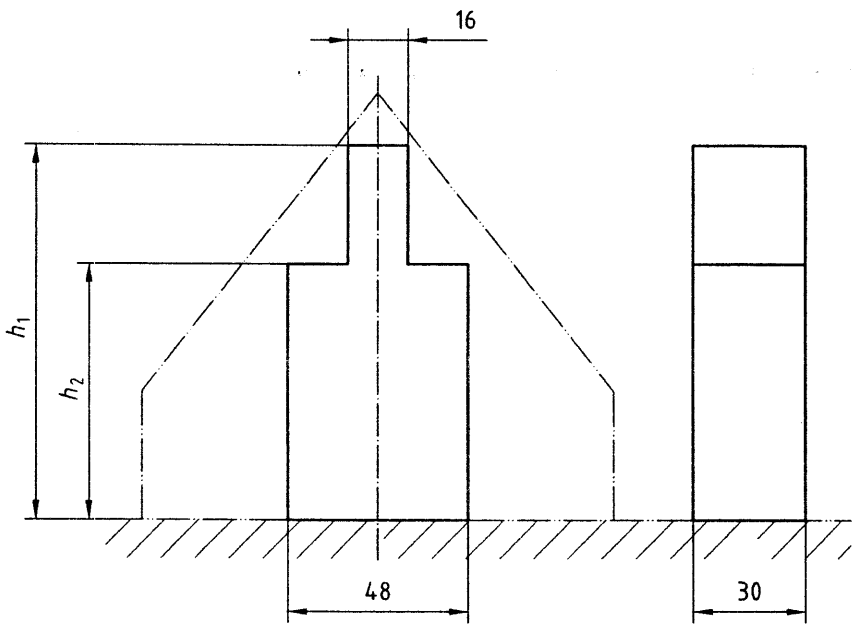
5 Testing

If no specific tests are described in 5.1 to 5.9, the requirements of Clause 4 shall be verified in an appropriate manner.

5.1 Clear height and seats for tents of type S, class st, and tents of type T

For testing the clear height and the seating capacity, a dummy conforming to Figure 2 shall be used.

Dimensions in centimetres



Key

h_1 120 cm for tents of type T
90 cm for tents of type S, class st

h_2 90 cm for tents of type T
60 cm for tents of type S, class st

NOTE For general tolerances see ISO 2768-1:1989 (tolerance class v).

Figure 2 — Dummy for clear height and seats

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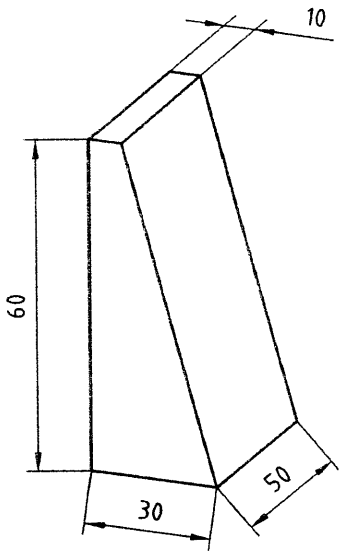
5.2 Storage space

For testing storage space, a dummy according to Figure 3 shall be used.

Dimensions in centimetres



NOTE For general tolerances see ISO 2768-1:1989 (tolerance class v).

Figure 3 — Dummy for the storage space

5.3 Zip fasteners

5.3.1 Determination of the lateral strength of the zip fastener

The velocity at which the clamps (see Figure 4) withdraw from each other is 15 cm/min. The determination of the maximum lateral strength shall be carried out at standard atmosphere in accordance with ISO 139. Prior to testing, the zip fastener shall be equilibrated in the measuring atmosphere for at least 48 h.

Dimensions in centimetres

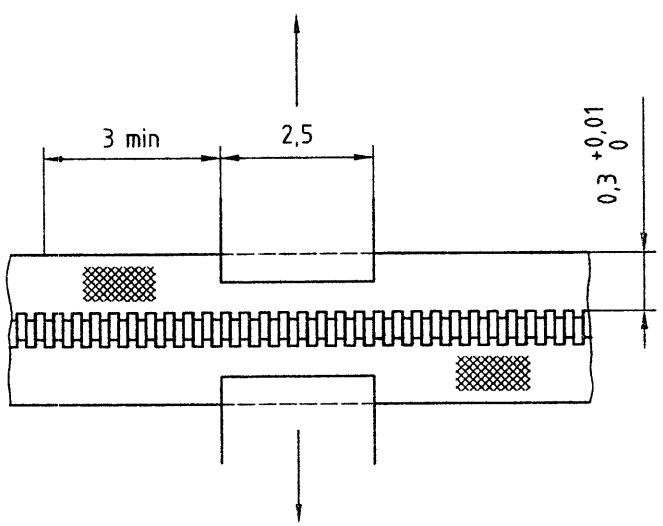


Figure 4 — Stretching to determine the maximum lateral strength

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5.3.2 Testing of behaviour under conditions of continuous reciprocating movement

Testing of behaviour under conditions of continuous reciprocating movement shall be carried out by a device according to Figure 5.

Apply a force F_1 in the lateral direction and a force F_2 in the longitudinal direction, according to Table 7, to the tapes on both sides half-way between the two extreme ends of the slide.

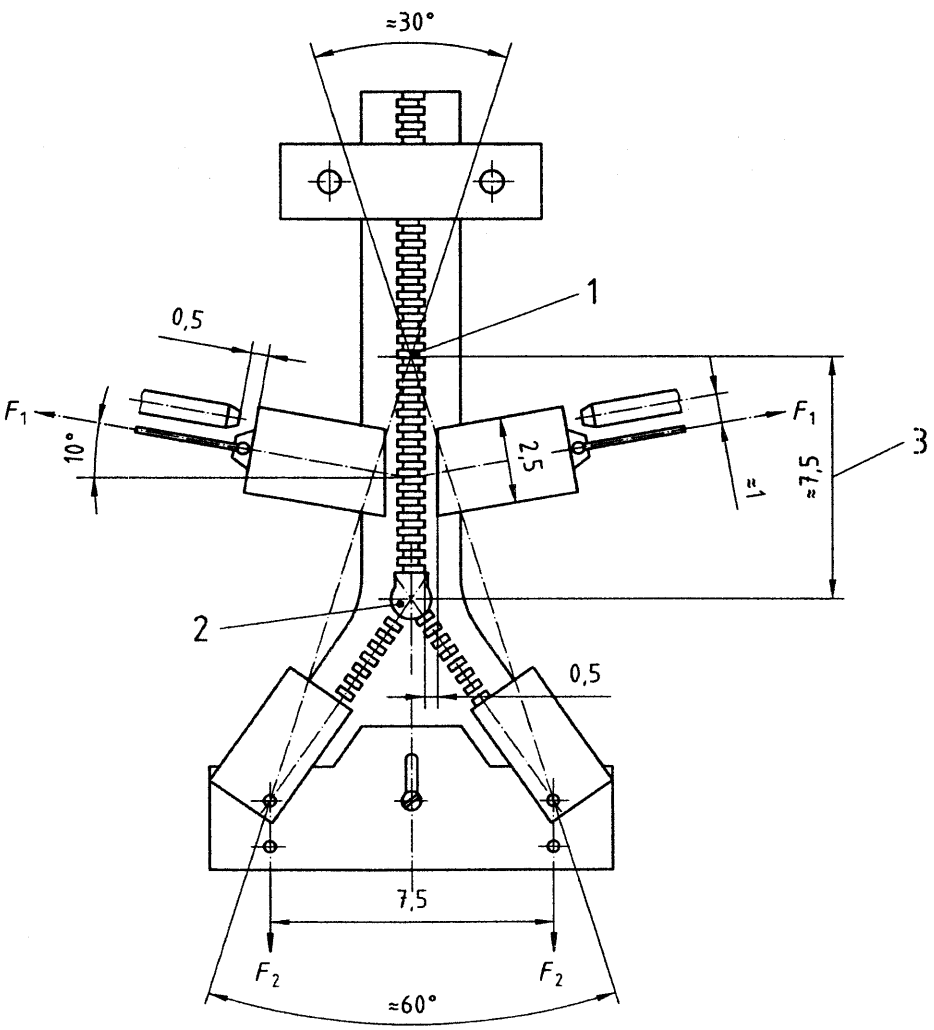
Set and apply the test loads with the slider on the zip fastener, at the bottom end, and do not change them during the test.

Ensure that the opening angle of the slider tab is approximately 30° at the upper point of reversal and approximately 60° at the lower point of reversal. When opening, F_1 may be zero.

Open and close the zip fastener 200 times by moving the slider over a length of traverse of 7,5 cm, a to and fro movement being designated as a stroke, at a test velocity of 30 strokes/min.

Subsequent to this preloading, the maximum lateral strength of the zip fastener shall be determined according to 5.3.1.

Dimensions in centimetres



Key

1 upper point of reversal
2 lower point of reversal
3 test length

Figure 5 — Device for the reproducible simulation of a load situation at the zip fastener

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Table 7 — Loads for the test under conditions of continuous reciprocating movement

Forces in newtons

Force (loading)	Minimum tensile strength range, F_z		
	$200 \leqslant F_z \leqslant 300$	$300 \leqslant F_z \leqslant 400$	$400 \leqslant F_z \leqslant 500$
F_1	14	16	24
F_2	10	14	18

5.4 Corrosion test

Subject the framework for 36 h to a salt spray test according to ISO 7253, or for 192 h to a test according to EN 12329.

5.5 Ground fastening

5.5.1 The ground tensioner and its fastening shall be taken from the tent fabric in the form of a strip having a width of 5 cm (three test specimens). The test specimen shall be clamped into a tensile testing machine, with the tent fabric on one side and the ground tensioner on the other side. The lower fastening element is the peg which is hooked through the ground tensioner and fixed to the clamping device of the tensile testing machine.

The test is carried out in accordance with ISO 13934-1 (with corresponding adjustment of the clamping) at a test velocity of 10 cm/min. Indicate the maximum force and record the type of failure.

5.5.2 The tensile strength shall be tested in accordance with ISO 2062.

5.6 Rain test

To test the requirements of 4.2.11, a blank test shall first be made.

Prior to the rain test, the test tent shall be subjected to a single rain test and allowed to dry for 24 h.

The rain test is conducted as illustrated in Figure 6.

The sprinkling installation consists of

a) two sprinklers (A and B, see Figure 6) designed as follows:

   — swivelling up to 90° maximum,

   — nozzle diameter 0,11 cm,

   — angle of sprinkling 45°;

b) sprinkling area size 500 cm × 600 cm;

c) water-permeable ground, e.g. lawn.

Pitch the tent in accordance with the instructions for use. Carry out the rain test with the tent closed.

Sprinkler A shall be adjusted at such an angle that the foremost jet is about 20 cm in front of the tent (see Figure 6).

The tent shall first be placed with the entrance facing sprinkler A for 2 h, then turned through about 90° and sprinkled for another 3 h. If further entrances or openings are provided, they are to be placed facing sprinkler A, if they have a different design from the first entrance.

The water pressure shall be 3 bar to 4,5 bar. The water flow rate shall be 1 800 l/h.

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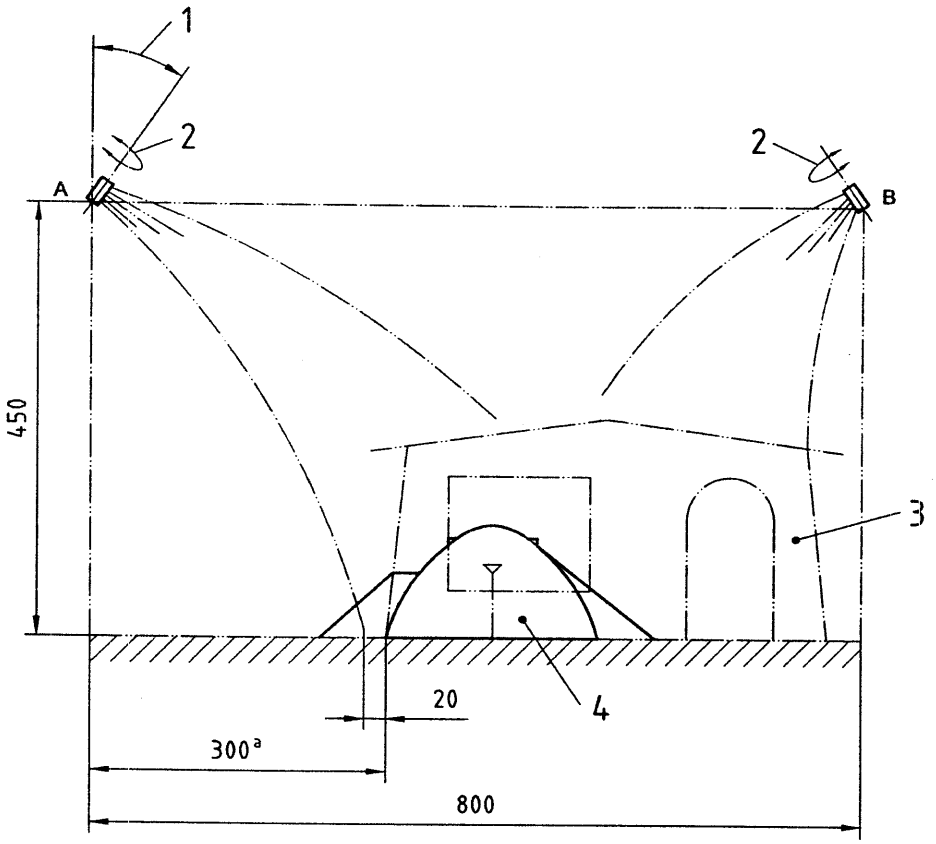
Dimensions in centimetres



Key

1 adjustable inclination

2 swivelling

3 large tent after turning the entrance through about 90° away from sprinkler A

4 small tent placed with entrance facing sprinkler A

[a] For tents having a width above 500 cm, dimension 300 cm is reduced, when the wide side of the tent is placed in direction AB.

Figure 6 — Rain test

5.7 Material connection test

Testing shall be conducted in accordance with ISO 13934-2, with the material connection at right angles to the direction of tensile load application in the middle of the test sample. Breaking shall occur outside the material connection.

5.8 Resistance of plastic sheets to discolouration under the effect of moisture

The plastic sheets shall be exposed to weathering according to ISO 105-B04 for 24 h. Afterwards, the sample shall be stored at standard atmosphere according to ISO 554 for 24 h. A possible discolouration shall be evaluated on the basis of the grey scale for the assessment of colour changes (according to ISO 105-A02).

5.9 Dimensional stability of tents in synthetic fabrics

Erect the tent after it has been immersed in water for 10 min. In cases where it is possible to change the tension and thus have different positions, the alternative giving the most tautness shall be chosen. Reduce the relative humidity to (0 to 5) %.

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Since the temperature does not play a role in these tests, the temperature can be increased in order to achieve the lower relative humidity, if necessary, by directing a heat source at the tent.

If a heat source is used, then the surface temperature of the tent shall not exceed 60 °C.

6 Instructions for use

Each tent shall be accompanied by instructions for use with explanatory sketches or drawings. In particular, these instructions shall ensure that the pitching and maintenance are well understood by a person who buys a tent for the first time.

The instructions for use shall at least contain information about the following items:

a) Trial pitching of the tent (to get used to the design).

b) Choice of the site:

- type of ground,
- prevailing wind direction.

c) Pitching/striking:

- information concerning the marking of the frame assembly,
- order of pitching/striking,
- fastening, storm guys.

d) Behaviour in the event of fire/means of escape:

- advice to occupiers (see 4.2.19).

e) Ventilation.

f) Particular problems:

- snow,
- sandy soil,
- storms,
- particular environmental conditions.

g) Packing:

- folding scheme,
- packing of wet tents (consequences),
- separation of frame parts and canvas.

h) Maintenance/repair:

- cleaning, spot removal,

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— storage,

— repair of minor leaks,

— reproofing,

— maintenance of zip fasteners and frame assembly,

— repair of broken frame parts,

— repair of damage to fabrics and plastic sheets.

7 Marking

7.1 Tents shall be marked with the name or trademark of the manufacturer, supplier or importer.

7.2 Tents conforming to this International Standard shall be marked in such a way that the consumer, when buying a tent, is able to recognize essential data concerning the tent, including the level of material performance as specified in ISO 10966. The marking should preferably be in accordance with the examples given in Tables A.1 and A.2.

7.3 The manufacturer is allowed to indicate, on his own responsibility, that tents are in conformity with this International Standard by adding a reference to ISO 5912.

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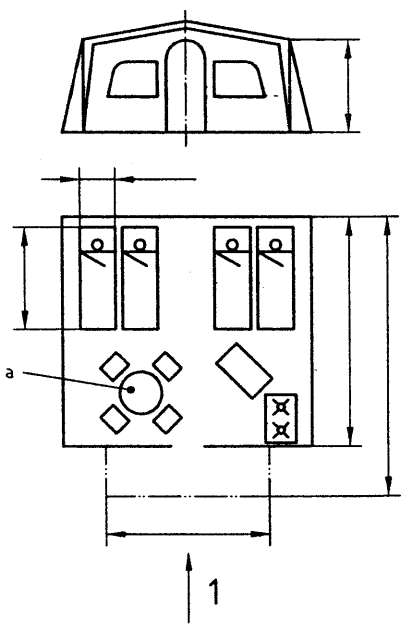
Annex A
(informative)

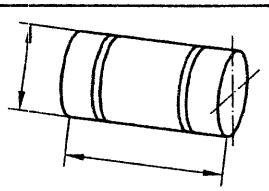
Marking of tents

A.1 Touring and residential tents (types T and R)

The figures and material data given as examples in Table A.1 serve only as an illustration of the described type.

Table A.1 — Marking of tents of types T and R

<table>
<tr><th colspan="4">Touring (or residential) tent according to ISO 5912</th></tr>
<tr><td>Number of sleeping places, living area with furniture[a] and main dimensions of outer/inner tent</td><td colspan="3"> 

Key
1 Entrance</td></tr>
<tr><td>Packing dimensions
Packing weight</td><td>  </td><td>..... kg</td><td>Divisible into ..... parts
or non-divisible</td></tr>
<tr><td>Material[b]:
Outer tent
Inner tent</td><td colspan="3">
Coated polyester
Cotton 100 %</td></tr>
<tr><td>Manufacturer/Importer</td><td colspan="3"></td></tr>
<tr><td colspan="4">[a] Marking of furniture is optional.
[b] In accordance with ISO 10966.</td></tr>
</table>

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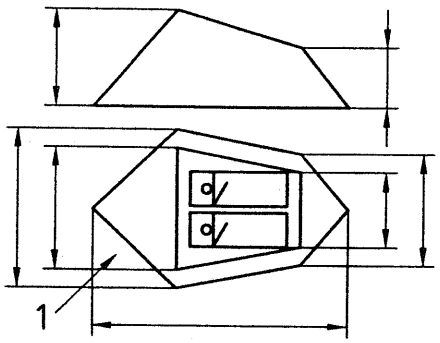
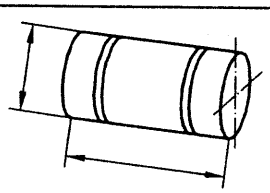
A.2 Sleeping tents (type S)

The figures and material data given as examples in Table A.2 serve only as an illustration of the described type.

Table A.2 — Marking of tents of type S

<table>
<tr><th colspan="4">Sleeping tent, class st (or I) according to ISO 5912</th></tr>
<tr><td>Number of sleeping places and main dimensions of outer/inner tent</td><td colspan="3"> 

Key
1 Entrance</td></tr>
<tr><td>Packing dimensions
Packing weight</td><td>  </td><td>..... kg</td><td>Divisible into ..... parts
of ..... kg non-divisible</td></tr>
<tr><td>Material[a]:
Outer tent
Inner tent</td><td colspan="3">
Coated polyester
Cotton 100 %</td></tr>
<tr><td>Manufacturer/Importer</td><td colspan="3"></td></tr>
<tr><td colspan="4">[a] In accordance with ISO 10966.</td></tr>
</table>

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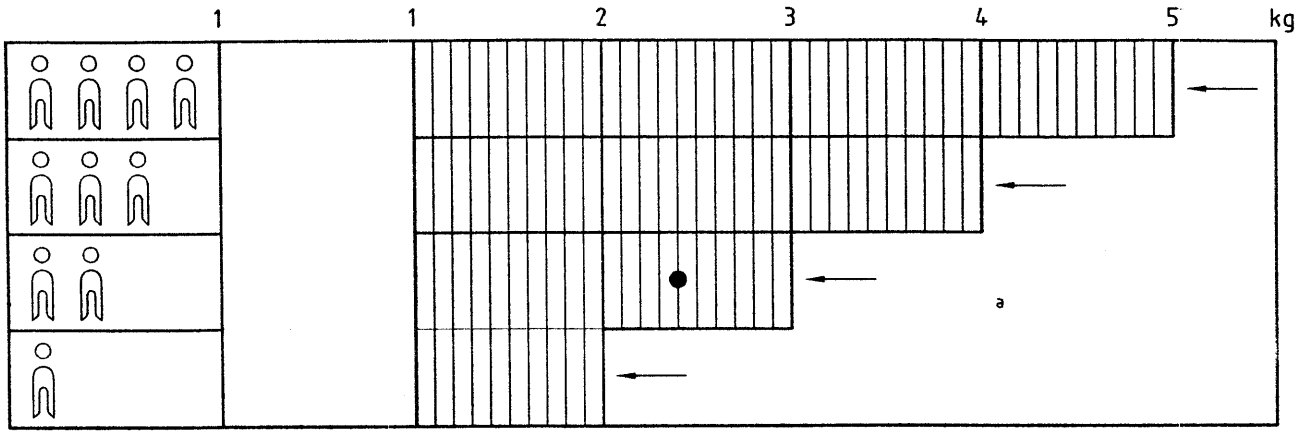
A.3 Mass of tent

For tents of type S, class I, the mass, for example 3,4 kg for a two-person tent, shall also be indicated as shown in Figure A.1, with reference to the permissible upper limit of the mass according to this International Standard.



a Permissible maximum mass according to ISO 5912.

Figure A.1 — Indication of the mass of the tent

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ICS 97.200.30

Price based on 22 pages

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