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Awnings for leisure accommodation vehicles — Requirements and test methods

Auvents pour véhicules de loisirs habitables — Exigences et méthodes d'essai

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2. www.iso.org/directives

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see the following URL: http://www.iso.org/iso/foreword.html

The committee responsible for this document is ISO/TC 83, *Sports and other recreational facilities and equipment*.

This fourth edition cancels and replaces the third edition (ISO 8936:2007) which has been technically revised.

The main changes include the following:

a) terms and definitions updated;

b) new type of awnings "Light-weight awnings (Type L)" added;

c) roofs and walls divided into "coated and laminated" and "non-coated";

d) in 5.1.3 "Awning perimeter size", the relation between awning and vehicle clarified;

e) in 5.2.1 "General", requirements inner tents specified in regard to ISO 5912;

f) in 5.8 "Ventilation", requirements for sewn in ground sheets formulated;

g) in 5.12 "Resistance to roof loading", requirements modified;

h) in 6.6.2 "Rainshower test", test method modified;

i) in 6.6.3 "Resistance of seams and material to water ingress from pooled water (trough test)", test method for seam tightness simplified and two new figures added;

j) Clause 7 "Marking" modified and restructured;

k) Clause 8 "Information supplied by the manufacturer", modified and restructured;

l) warning notices transformed into annexes;

m) new Annex C added as an example for customer information prior to purchase.

Introduction

General

The principal objective of this document is to simplify it from previous editions. It combines test requirements and product requirements into one document, providing manufacturers, specifiers and consumers with a single reference point for the safety and quality performance of awnings.

The traditional frame assembly mechanism for awnings has been a system of structural tubular or sectioned metal poles. This has recently evolved to include flexible pole systems and inflatable tube systems. Over the course of revision of this document it has been possible to consider some but not all aspects of these changes. In particular no specific requirements have been given for inflatable systems. It is intended that these will be addressed if required at the next revision.

Environmental considerations

Every product affects the environment in the course of its lifecycle from raw material acquisition through production, distribution and use, to disposal. Environmental impacts are consequences of the consumption of energy and resources and the generation of waste, as well as the emission of substances into air, water and soil. The magnitude of the environmental impacts during the various lifecycle changes depends on a number of choices made in the design of the product, such as the materials used, production methods, and considerations related to maintenance and recycling. Manufacturers and distributors of awnings for leisure accommodation vehicles should consider the environmental impact of their product by, for example:

— avoiding the use of environmentally harmful substances;

— selecting the best available technology and techniques to reduce consumption of energy and materials;

— considering use of recycled materials for product and packaging;

— encouraging responsible end of life disposal by the user including guidance on separation and identification of any recyclable components and packaging;

— using materials, components, and manufacturing facilities which have declared documented;

— environmental policies.

Awnings for leisure accommodation vehicles — Requirements and test methods

1 Scope

This document specifies requirements, test methods and material performance characteristics for vehicle awnings. It applies to awnings intended to be pitched and struck.

This document is not applicable to:

a) sun awnings: structure detachable from the vehicle which is used to provide shelter from the sun, but is not designed or constructed to provide shelter from wind, rain or snow;

NOTE 1 A sun awning can be used with additional front and side panels to form an enclosure, but this enclosure would not meet the requirements of an awning as defined in this document.

b) external blinds: structure permanently fixed to a vehicle which is used to provide shelter from the sun, but is not designed or constructed to provide shelter from wind, rain or snow;

NOTE 2 An external blind can be used with additional front and side panels to form an enclosure, but this enclosure would not meet the requirements of an awning as defined in this document.

c) fixed awnings: permanent awning which is not designed for mobile use.

EXAMPLE Awnings equipped with square aluminium frames or timber supporting structures and the possibility to install living compartment windows and doors.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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-B02, *Textiles — Tests for colour fastness — Part B02: Colour fastness to artificial light: Xenon arc fading lamp test*

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

ISO 105-E01, *Textiles — Tests for colour fastness — Part E01: Colour fastness to water*

ISO 105-X12, *Textiles — Tests for colour fastness — Part X12: Colour fastness to rubbing*

ISO 811, *Textile fabrics — Determination of resistance to water penetration — Hydrostatic pressure test*

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

ISO 2081, *Metallic and other inorganic coatings — Electroplated coatings of zinc with supplementary treatments on iron or steel*

ISO 4675:1990, *Rubber- or plastics-coated fabrics — Low-temperature bend test*

ISO 4892-2:2013, *Plastics — Methods of exposure to laboratory light sources — Part 2: Xenon-arc lamps*

ISO 5912:2011, *Camping tents*

ISO 6925, *Textile floor coverings — Burning behaviour — Tablet test at ambient temperature*

ISO 6941:2003, *Textile fabrics — Burning behaviour — Measurement of flame spread properties of vertically oriented specimens*

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

ISO 7771, *Textiles — Determination of dimensional changes of fabrics induced by cold-water immersion*

ISO 9227, *Corrosion tests in artificial atmospheres — Salt spray tests*

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

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

EN 15977:2011, *Rubber or plastic coated fabrics — Mechanical properties — Determination of the elongation under load and the residual deformation*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 7152 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at http://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
awning
closable structure intended to be fixed to a stationary vehicle or to stand free of the vehicle

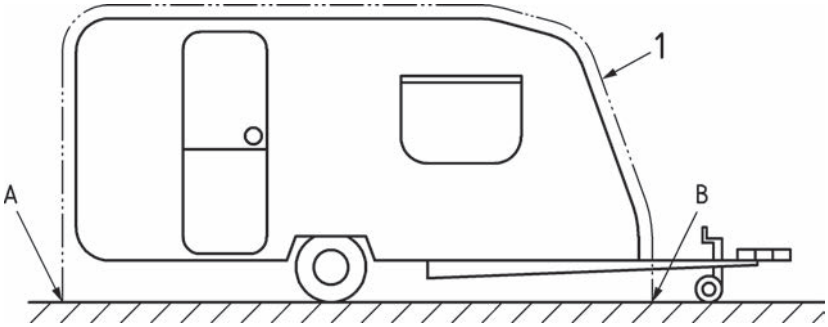
Note 1 to entry: Structures which are designed as awnings are considered as awnings even if they are free-standing, such as awning variations for caravans and motorised vehicles.

3.2
free-standing awning
awning that will remain erected without support from a vehicle

3.3
outer awning dimensions
dimension of the smallest rectangular pitching space required for the awning, excluding guy lines

3.4
perimeter
distance from point A, up round the awning channel, usually fitted around the edge of the vehicle and down to point B when the vehicle is parked, on level ground, with all corner steadies in contact with the ground

Note 1 to entry: See Figure 1.



Key

1 perimeter

A rear ground point

B front ground point

Figure 1 — Perimeter

3.5 Depth at ground level

3.5.1
depth at ground level of an erected awning
horizontal distance on the ground between the base of the vehicle wall and the base of the front edges of the awning

Note 1 to entry: This definition is applicable to awnings fixed to the awning rail.

Note 2 to entry: See Figure 2.

3.5.2
depth at ground level of a free-standing awning
horizontal distance on the ground between the base of the back edge and the base of the front edge of the awning

Note 1 to entry: The back edges and the front edges on the same side are used (do not measure in the diagonal direction).

Note 2 to entry: The flexible connection between the free-standing awning and the vehicle is not included in the depth at ground level.

3.6
awning depth at standing height
horizontal distance between the vehicle wall and the awning front wall at roof level

Note 1 to entry: See Figure 2.

3.7
overall depth
horizontal distance between the vehicle wall and the foremost part of the awning, measured at right angles

Note 1 to entry: The overall depth contains the maximum flexible connection depth for free-standing awnings.

3.8
outer fabric
fabric of awning which, when used as intended, is directly subjected to weather

3.9
frame assembly
framework or part of an awning or free-standing awning that is designed to retain its shape laterally or longitudinally in normal usage

3.10
flexible connection
adjustable connection between a free-standing awning and the vehicle

Note 1 to entry: This protects the user when moving between the vehicle and the awning and is variable in dimension.

3.11
sealed awning
awning that has the groundsheet sewn to the flysheet to form a sealed enclosed area, or an awning with a draught-skirt

Note 1 to entry: Awnings with draught-skirts are not normally sealed awnings but there is the possibility of snow or sand building up on these draught-skirts which can restrict air circulation creating a sealed awning.

Note 2 to entry: The use of a sealed awning can result in a build-up of harmful gases within the awning.

3.12
standing height
vertical height measured from the ground or the upper side of the sewn in ground sheet to the underside of the roof fabric

Note 1 to entry: See Figure 2.

3.13
awning depth at ground level
depth of awning perpendicular to the vehicle measured from the vehicle to the furthest point of the awning at ground level

Note 1 to entry: See Figure 2.

3.14
awning width at standing height
maximum width of awning measured parallel to the vehicle at standing height

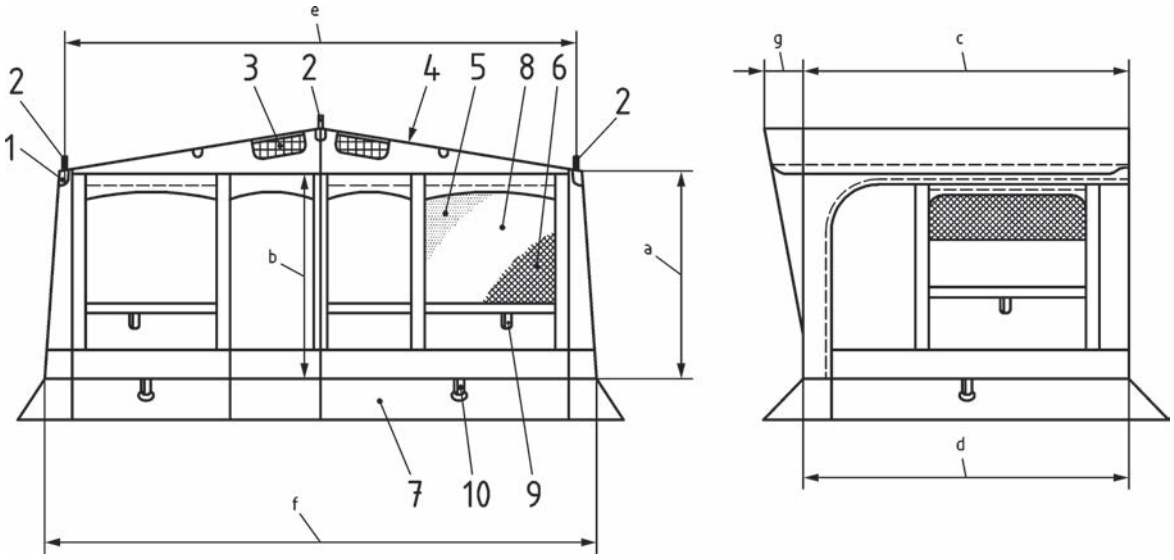
Note 1 to entry: See Figure 2.

3.15
awning width at ground level
maximum width of awning measured parallel to the vehicle at ground level

Note 1 to entry: See Figure 2.

3.16
canopy depth
maximum distance a canopy extends beyond a wall

Note 1 to entry: See Figure 2.



Key

1	corner guying point	10	ground anchorage
2	pole spike	a	Standing height.
3	vent (see ISO 7152)	b	Entrance height of a door or entrance.
4	roof	c	Awning depth at standing height.
5	window-cover	d	Awning depth at ground level.
6	window ventilation	e	Awning width at standing height.
7	mud wall	f	Awning width at ground level.
8	window	g	Canopy depth.
9	storm guying point		

NOTE The overall depth of the awning is not illustrated.

Figure 2 — Illustration of parts and components of awnings

4 Classification of awnings

4.1 Winter awning (Type W)

Awning suitable for all year round use with a roof load as specified in 5.12 a).

4.2 Residential awning (Type R)

Awning suitable for continual use over extended periods including a light snow load and for a roof load as specified in 5.12 b).

4.3 Touring awning (Type T)

Awning suitable for repeated pitching and striking and use at any time of the year but not in winter snow conditions with a roof load as specified in 5.12 c).

NOTE Striking is the act of dismantling and packing away an awning.

4.4 Light-weight awning (Type L)

Awning suitable for repeated pitching and striking which is characterized by ease of use and lightness with a total weight of < 2,75 kg/m^2 base area, and which is suitable for a roof load as specified in 5.12 d).

5 Requirements

5.1 Dimensions

5.1.1 General

Where dimensions are provided in any information to the user they should be measured in centimetres by the manufacturer as a guide only in the approximate positions as indicated in Figure 2

5.1.2 Entrance/exit dimensions

At least one entrance/exit shall have a height, measured from ground level, of ≥ 1 700 mm at the highest point and a width of ≥ 500 mm measured at 1 500 mm above the ground with entrance fully opened.

5.1.3 Standing height

Awnings shall have a standing height of ≥ 1 800 mm, over 70 % of the base area.

5.1.4 Awning perimeter size

For those awnings fitting around the perimeter of a caravan, the range of perimeters within which it fits shall be indicated according to Table 1.

