

## SLOVENSKI STANDARD SIST EN 14975:2007

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Loft ladders - Requirements, marking and testing

Bodentreppen - Anforderungen, Kennzeichnung und Prüfung

Ecscaliers du grenier - Exigences, marquage et essais

# Ta slovenski standard je istoveten z: EN 14975:2006

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# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

### EN 14975

December 2006

ICS 97.145

**English Version** 

### Loft ladders - Requirements, marking and testing

Escaliers du grenier - Exigences, marquage et essais

Bodentreppen - Anforderungen, Kennzeichnung und Prüfung

This European Standard was approved by CEN on 25 November 2006.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom, teh.at

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

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### Foreword

This document (EN 14975:2006) has been prepared by Technical Committee CEN/TC 93 "Ladders", the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by June 2007, and conflicting national standards shall be withdrawn at the latest by June 2007.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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#### 1 Scope

This European Standard specifies terms and definitions, product requirements and test methods for the construction and performance of loft ladders.

#### 2 Normative references

Not applicable.

#### 3 Terms and definitions

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

#### 3.1

#### loft ladder

ladder designed to be permanently fixed at its top end with sliding or hinged sections permitting it to be lowered to and raised from a lower level to provide access to a loft or similar point at a higher level

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#### 3.2

types of loft ladder

#### 3.2.1

#### concertina loft ladder

loft ladder with extendable climbing supportstandards.iteh.ai)

NOTE See Figure 1.

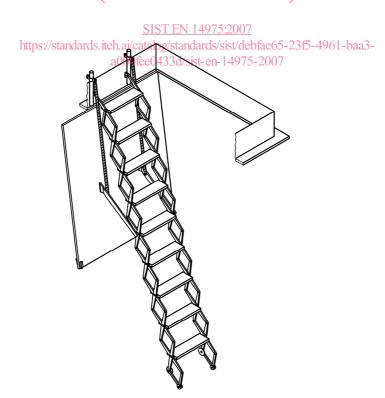


Figure 1 — Concertina loft ladder

### 3.2.2 hinged/folding loft ladder

loft ladder with hinged or folded climbing support

NOTE See Figure 2.



Figure 2 — Hinged/folding loft ladder

**3.2.3 sliding loft ladder** loft ladder with sliding climbing support

**3.2.3.1 push-out sliding loft ladder** sliding loft ladder with climbing support to be pushed out

NOTE See Figure 3.

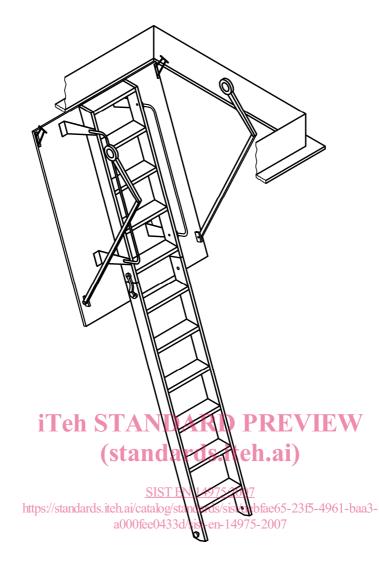


Figure 3 — Push-out sliding loft ladder

# 3.2.3.2 pull-out sliding loft ladder

sliding loft ladder with climbing support to be pulled out

NOTE See Figure 4.

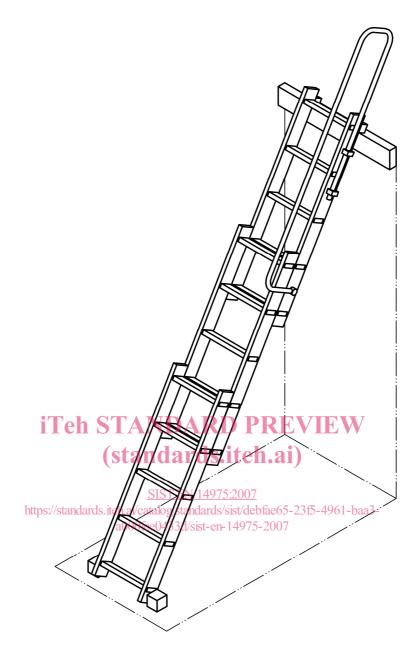


Figure 4 — Pull-out sliding loft ladder

#### 3.3 parts of a loft ladder

#### 3.3.1

handrail

rail fitted to loft ladder to give user support when climbing or descending loft ladder

#### 3.3.2

#### trapdoor

door giving access to loft or similar point at a higher level

NOTE The loft ladder may or may not be attached to the trapdoor.

### 3.3.3

#### hinge

connecting element between loft ladder or trapdoor and loft or trapdoor casing similar point at a higher level

#### 3.3.4

#### rung

climbing support with a standing surface from front to back of less than 80 mm and more than 20 mm

#### 3.3.5

#### stile

side members to which the rungs, treads or cross-members are fitted

#### 3.3.6

#### stile hinge

connecting element between folding ladder parts

#### 3.3.7

#### locking device

mechanism to prevent unintended sliding out, extending or unfolding of the loft ladder

#### 3.3.8

#### tread

climbing support with a standing surface from front to back equal to or greater than 80 mm

#### 4 Maximum load

The requirements are based upon a maximum total load of 150 kg.

Loft ladders are designed to be used by one person at a time D PREVIEW

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#### 5 Test methods

5.1 General

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#### 5.1.1 Tolerances

For all tests, unless otherwise stated in the particular test, the following tolerances are permitted as uncertainty of measurement:

 $\pm$  1 mm for linear measurements;

- $\pm$  1° for the measurement of angles;
- $\pm$  1 % for static forces and torque;

 $\pm$  3 % for dynamic forces.

#### 5.1.2 Test sequence

Tests shall be performed in the order they are given in the standard.

#### 5.1.3 Test temperature

All tests shall be performed at room temperature (15 °C to 25 °C).

#### 5.2 Static load test

Set up the ladder at its maximum length (fully extended) and adjust it in accordance with the manufacturer's instructions, perpendicular to the pivot line of the top hinge. Position the feet on a platform provided with rollers so that the ladder is at the particular ladder's median operating angle  $\pm$  3°. If a catch is fitted to one side only, carry out the test on the side opposite to the catch.

Apply a pre-load of 1 000 N over 100 mm  $\times$  100 mm in the centre of:

- a) the central tread or rung  $F_2$ ;
- b) the top tread or rung  $F_1$ ;
- c) the tread or rung nearest to the joint(s), hinges(s) or overlap(s) of the stiles.

Maintain the force on points  $F_1$  and  $F_2$  in turn for 60 s. Measure the deformation of the stile after the pre-load. This now represents the reference point from which subsequent deformation will be recorded.

Apply the total test force of 2 600 N on each point in turn over 100 mm  $\times$  100 mm and maintain for 60 s.

Remove the load and examine the stiles and record any permanent deformation. Also check that the ladder is capable of being stowed and un-stowed.

After removal of the test loads no visible permanent deformation shall occur on the hinge-joints, opening restraint devices and their attachments. The ladder shall not show any visible damage such as cracks, indentations etc. For sliding and folding/hinged loft ladders the maximum permissible permanent deformation f is less than or equal to  $(0,005 \times \text{maximum extended length of stiles})$  mm. For all types of loft ladder any permanent deformation shall not impair the fitness for use of the ladder and the ladder shall still be capable of being stowed and un-stowed.

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