



SLOVENSKI STANDARD
SIST-TS CEN/TS 16665:2014

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Specifikacija preskusa odpornosti stoječe lestve

Standing ladder durability test specification

Prüfung der Dauerhaltbarkeit von Stehleitern

Caractéristiques des méthodes d'essais de durabilité des échelles autostables (échelles et marchepied)

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Ta slovenski standard je istoveten z: CEN/TS 16665:2014

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ICS:

97.145 Lestve Ladders

SIST-TS CEN/TS 16665:2014 **en,fr,de**

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TECHNICAL SPECIFICATION
SPÉCIFICATION TECHNIQUE
TECHNISCHE SPEZIFIKATION

CEN/TS 16665

May 2014

ICS 97.145

English Version

Standing ladder durability test specification

Méthode d'essais de la durabilité des échelles

Prüfung der Dauerhaltbarkeit von Stehleitern

This Technical Specification (CEN/TS) was approved by CEN on 20 January 2014 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

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Foreword

This document (CEN/TS 16665:2014) has been prepared by Technical Committee CEN/TC 93 “Ladders”, the secretariat of which is held by DIN.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to announce this Technical Specification: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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Introduction

The use of a CEN Technical Specification has been agreed by CEN/TC 93 to enable further testing and validation of a standing ladder durability test and ultimately rapid incorporation into EN 131-2.

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1 Scope

This Technical Specification specifies the method of the test for the standing ladder durability requirements evaluation.

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 131-1:2007+A1:2011, *Ladders - Part 1: Terms, types, functional sizes*

EN 10088-2:2005, *Stainless steels - Part 2: Technical delivery conditions for sheet/plate and strip of corrosion resisting steels for general purposes*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 131-1:2007+A1:2011 and the following apply.

3.1

ladder collapse

collapse that happens when the defined load value of (1500 ± 50) N is not maintained by the thrust device

3.2

ladder rupture

rupture that happens when the ladder breaks and this impairs the fitness for use of the ladder

3.3

test step

sequence of 10 000 cycles

Note 1 to entry: see 4.5.

4 Durability test method

4.1 General

This test is for standing ladders or combination ladders used as standing ladders.

4.2 Principle

The standing ladder is placed in position of use on the testing surface with the 4 standing ladder stiles constrained to a fixed part by elastic rope/tape to prevent excessive progressive movement of the standing ladder (see Figure 1).

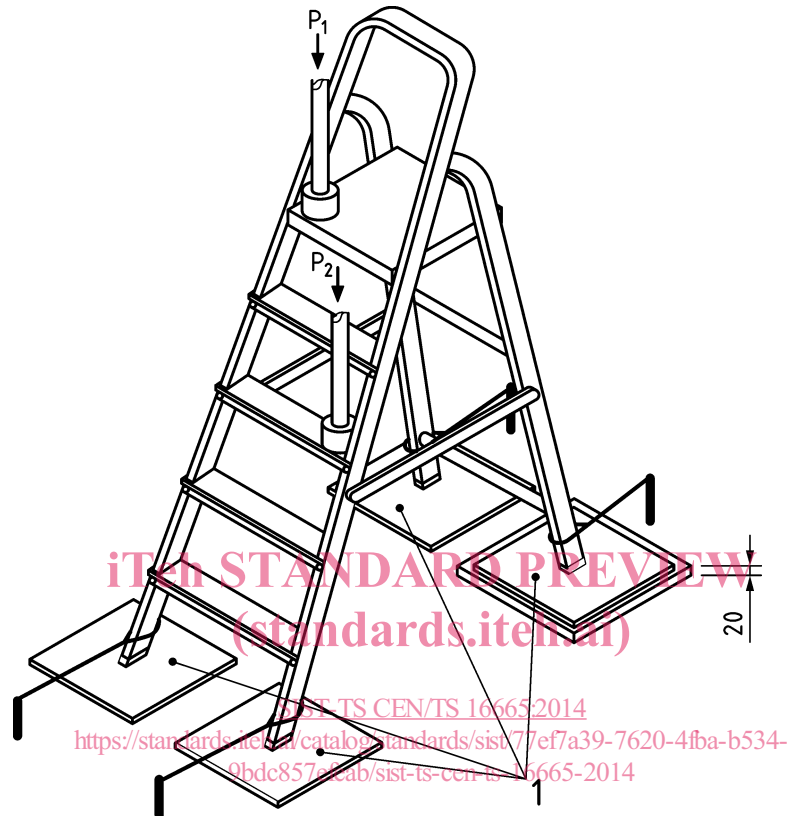
Two equal loads P_1 and P_2 are applied to the standing ladder by testing apparatus following a well defined load versus time law of cycles: one load is applied to the topmost rung/step/platform and the other one is applied to the rung/step in the middle of the ascending leg.

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The load application shall continue until the defined load value is maintained by the thrust device or until to the collapse of standing ladder.

The maximum number of cycles is registered.

Dimensions in millimetres



Key

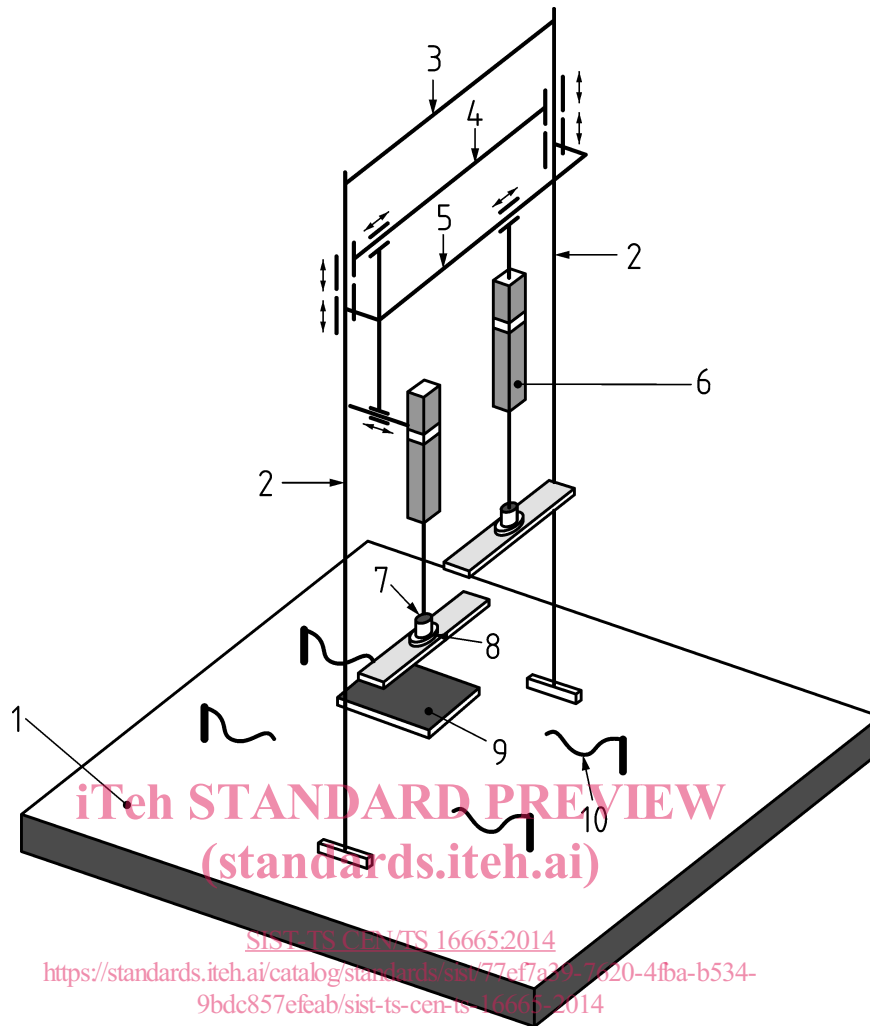
- | | |
|-----------------|-----------------|
| 1 | stainless steel |
| P_1 and P_2 | equal loads |

Figure 1 — Scheme of principle of the test durability for standing ladder

4.3 Apparatus

4.3.1 General

The load shall be provided by pneumatically or oleodynamic system. An equipment of control and of check of the overall system shall be installed in order to ensure the requirements of 4.5 (see Figure 2).

**Key**

- 1 rigid testing surface
- 2 rigid uprights
- 3 rigid cross bar to join permanently the two uprights
- 4 1 rigid upper mobile cross bar to secure one cylinder
- 5 1 rigid lower mobile cross bar to secure one cylinder
- 6 2 cylinders
- 7 2 cylindrical pads as thrust surface
- 8 2 load cells
- 9 1 flat element of 20 mm of thickness
- 10 4 elastic ropes/tapes

Figure 2 — Example of apparatus that could be used to apply the load

4.3.2 Thrust surface/pad

The two loads shall be applied to the rung/step/platform by a cylindrical rubber pad as thrust surface.

Pad dimension shall be the following: (60 ± 5) mm of diameter and a height of (25 ± 5) mm (see Figure 3).