

ICS 97.145

English Version

Standing ladder durability test specification

Méthode d'essais de la durabilité des échelles

Prüfung der Dauerhaltbarkeit von Stehleitern

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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.

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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.