BS EN 1381:2016

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Timber structures — Test methods — Load bearing stapled joints

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National foreword

This British Standard is the UK implementation of EN 1381:2016. It supersedes BS EN 1381:1999 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee B/518, Structural timber.

A list of organizations represented on this committee can be obtained on request to its secretary.

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English Version

Timber structures - Test methods - Load bearing stapled joints

Structures en bois - Méthodes d'essai - Assemblages agrafés porteurs

Holzbauwerke - Prüfverfahren - Tragende Klammerverbindungen

This European Standard was approved by CEN on 19 December 2015.

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European foreword

This document (EN 1381:2016) has been prepared by Technical Committee CEN/TC 124 "Timber Structures", the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by August 2016, and conflicting national standards shall be withdrawn at the latest by August 2016.

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.

This document supersedes EN 1381:1999.

Compared to EN 1381:1999, the following changes have been made:

— replacement of EN 28970 by EN ISO 8970;

— improvement to figures and definitions.

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1 Scope

This European Standard specifies test methods for determining the strength and deformation characteristics of stapled joints in load-bearing timber structures.

The methods assess joints with members of timber (solid timber and glued laminated timber) or wood-based products in the combination proposed for use in service and using all types of staples up to 3 mm diameter for circular cross-section staples or 4 mm x 2 mm for rectangular or oval cross-section staples.

The methods determine load-slip characteristics and maximum load of joints with laterally loaded staples where various angles between the applied force and the timber grain direction or the main direction of the wood-based products, respectively, are possible.

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 322, *Wood-based panels - Determination of moisture content*

EN 323, *Wood-based panels - Determination of density*

EN 14592, *Timber Structures – Dowel-type-fasteners – Requirements*

EN 26891:1991, *Timber structures - Joints made with mechanical fasteners - General principles for the determination of strength and deformation characteristics (ISO 6891:1983)*

EN ISO 8970:2010, *Timber structures - Testing of joints made with mechanical fasteners - Requirements for wood density (ISO 8970:2010)*

ISO 13061-1, *Physical and mechanical properties of wood — Test methods for small clear wood specimens — Part 1: Determination of moisture content for physical and mechanical tests*

ISO 13061-2, *Physical and mechanical properties of wood — Test methods for small clear wood specimens — Part 2: Determination of density for physical and mechanical tests*

3 Terms and definitions

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

3.1
staple
double-bent, u-shaped piece of round, square, rectangular or oval wire with pointed

3.2
staple crown
connection between the two staple legs

3.3
staple leg diameter or side length
nominal diameter of a round staple leg, the side length of a rectangular leg, or the diameter of an oval cross section as defined in EN 14592

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