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Timber structures — Test methods — Torsional resistance of driving in screws

Structures en bois — Méthodes d'essai — Résistance à la torsion des vis lors du vissage

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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

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Foreword

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The committee responsible for this document is ISO/TC 165, *Structural Timber*.

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Timber structures — Test methods — Torsional resistance of driving in screws

1 Scope

This International Standard specifies a test method to determine the torsional resistance to driving of screws in solid timber or glued laminated timber or other wood-based materials. The method is used primarily to ensure the torque that may be applied to install screws will be less than the specified failure torque of the screw.

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.

ISO 3130, *Wood — Determination of moisture content for physical and mechanical tests*

ISO 3131, *Wood — 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
moment cell
device that records the torque applied

3.2
test piece
element or part of an element that will include the driven screw after the test made of solid timber, glued laminated timber or wood-based materials, or combinations of these materials

4 Symbols

$R_{tor,max}$ maximum screw insertion moment, in Newton millimetre

d screw nominal diameter, in millimetre

l total length of the screw, in millimetre

5 Material requirements

5.1 Description

The screws and solid timber, glued laminated timber or wood based material to be used in the test shall be clearly defined.

NOTE 1 Screws should be defined by reference to a recognized standard (e.g. EN 14592), in a manufacturer's specification, or in a technical specification that includes material properties and screw characteristics.

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