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Static and cyclic lateral load test methods for timber structure shear walls

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard uses the redrafting method to modify the ISO 21581.2010 "wood structure shear wall static load and low cycle repeated horizontal loading test

method".

This standard has more structural adjustments than ISO 21581.2010. This standard and ISO 21581.2010 are listed in Appendix A.

The chapter number is compared to the list.

There are technical differences between this standard and ISO 21581.2010. Appendix B gives the corresponding technical differences and their causes.

Watch list.

This standard also made the following editorial changes.

--- Added informative Appendix C, providing a static load and low cycle repeated horizontal loading test record table for wood structure shear walls;

--- Modified the standard name.

This standard was proposed by the National Forestry and Grassland Bureau.

This standard is under the jurisdiction of the National Timber Standardization Technical Committee (SAC/TC41).

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1 Scope

This standard specifies the terms, definitions and symbols, test pieces and test design of the static load and low-cycle repeated horizontal loading test methods for wood structural shear walls.

Preparation, test methods, test results, test reports.

This standard is applicable to the determination of the anti-side properties of static and low-cycle repeated loads of wood-structured shear wall systems under horizontal action, including failure modes.

Formula, maximum load, ultimate displacement, load-displacement curve, hysteresis curve of reciprocating load and skeleton curve.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 1928 General rules for physical and mechanical tests of wood (GB/T 1928-2009, ISO 3129.1975, NEQ)

GB/T 1931 Determination method of wood moisture content (GB/T 1931-2009, ISO 3130.1975, MOD)

GB/T 1933 Method for determination of wood density (GB/T 1933-2009, ISO 3131.1975, MOD)

GB/T 17657 Wood-based panel and finished panel physicochemical properties test method

3.1 Terms and definitions

The following terms and definitions apply to this document.

3.1.1

Shear wall shearwal

The surface layer is made of wood-based structural plates or gypsum boards, wall-pillars, and the wall material for vertical and horizontal action.

3.1.2

Cladding plate sheathingpanel

Wood-based structural panels or gypsum boards are used as cladding panels for wood-structured shear walls.

3.1.3

Wood-based structural panel wood-basedstructural-usepanel

A load-bearing plate made of wood as a raw material (rotary cut material, wood chip, sawdust, etc.) by gluing, including structural plywood and oriented wood veneer.

3.1.4

Pull-out fastener hold-downconnector

The steel member and the bolt are used to fix the end of the wood structure shear wall and the foundation beam, which is effective against the pull-up force and is installed on the wooden structure shear

Both ends of the force wall test piece provide a member with sufficient vertical restraint.

3.1.5

Long anchor bolt-tierod

Through the wooden structure shear wall test piece top beam and bottom beam, bolted to the experimental equipment loading beam and foundation beam of the long screw,