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CCS B 60



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 1934.2-2009

Replacing GB/T 1934.2-1991

**Method for determination of the swelling of wood
(English Translation)**

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Foreword

GB/T 1934 is divided into two parts.

- Determination of water absorption of wood;
- Wood Swelling of the measurement method.

This section GB/T 1934.2 "measuring method dilation wet wood." the partial modification of the use of ISO 4859. 1982 "Wood radial and tangential swelling determination" and ISO 4860. 1982 "Timber volume wet Expansion determination. " this part of ISO 4859. 1982 and ISO 4860. 1982 The main technical differences compared as follows.

- The above two international standards into a single standard.

This Part replaces GB/T 1934.2-1991 "timber method Swelling determination." this section compared with the GB/T 1934.2-1991, the main changes are as follows.

- Revised principles;
- Combined volume swelling and swelling of the line measured in the "sample" and "test steps" and the title number accordingly modify;
- In Chapter 6, the test procedure increases the "need to calculate when the volume swelling ratio, measured parallel to the grain direction of the length of the sample to the nearest 0.001mm "requirements;
- Appendix A partly modified.

Appendix A of this part is a normative appendix.

This part by the State Forestry Administration.

This part of the National Standardization Technical Committee centralized timber.

This section is responsible for drafting units. China Forestry Science Institute of Wood

Industry.

This section participated in the drafting unit. China Academy of Forestry Forest Research Institute of New Technology, Chinese Academy of Forestry Beijing forest machines.

1 Scope

GB/T 1934 This section provides the expansion of test equipment, samples, test procedures and results of calculation of measured wet wood.

This section applies to a small wood unblemished specimens of radial and tangential swelling and swelling of volume measurement.

2 Normative references

The following documents contain provisions which, through reference to GB/T 1934 to the present, constitute provisions of this section. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 1928-2009 physical and mechanical test methods - General GB/T 1929-2009 physical and mechanical test materials and test specimens sawing method GB/T 1931-2009 Method for determination of moisture content of wood Principle 3 Dry wood absorbs moisture or water, its size and volume with increasing moisture content and expansion. From wood to-dry moisture to the atmosphere with a relative humidity Degree of balance or water to change the size or volume ratio, when saturated at full size or volume of the dry, wet wood showing dilatancy.

4 Test Equipment

4.1

length measurement tool, measurements should be accurate to 0.001mm.

4.2

container impregnated sample.

4.3

GB/T 1931-2009 Chapter 3 test equipment requirements.

5 Sample

5.1

test material sawing and test specimens according to the provisions of GB/T 1929-2009 Chapter 3 performed.

5.2

Sample size is 20mm x 20mm x 20mm. Sample preparation and testing accuracy specified by GB/T 1928-2009 Chapter 3 get on.

6 Test procedure

6.1

The sample was placed in an oven starting temperature 60 °C for about 4h, then press 1931-2009 specified in GB/T 5.2 of the sample

6.2

The sample was placed in a temperature (20 ± 2) °C, relative humidity $(65 \pm 3)\%$ of moisture to dimensionally stable condition. In the adsorption process, with when two or three specimens, the test measured once every 6h chord dimension changes, to the difference between the two measurements is not more than 0.2mm, namely that the foot Length, accurate to 0.001mm.

6.3

Measurement sample size after immersion in distilled water filled container, the size of the water to be absorbed stable. To test the sample size as the two measurements no greater than 0.02mm, the size that is considered to stabilize and then measure the radial chord all the samples to size.