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NATIONAL METROLOGY VERIFICATION REGULATION OF THE PEOPLE'S REPUBLIC OF CHINA

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Verification Regulation of Wood Moisture Content Measuring Meters

木材含水率测量仪检定规程

(English Translation)

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Wood moisture meter test procedures

1 Scope

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This procedure is applicable to wood moisture meter for measuring the moisture content of wood and its products (hereinafter referred to as measurement).

The first test, subsequent verification and in-use test of the instrument.

2 Overview

The meter is mainly used to quickly detect the moisture content in wood, wood products and artificial boards. Measuring instrument according to the principle area Points, mainly resistance and capacitance methods. The electric resistance measuring instrument converts the moisture content in the wood through the probe and related circuits.

It is replaced by an electrical signal, and then by the conversion of the electrical signal, the meter indicates the measured value. Capacitance measuring instrument is to contain wood the change of the dielectric constant of the capacitor caused by the change of water rate is converted into an electrical signal by the measuring circuit, and then converted, the meter displays the measured value.

3 Metrological performance requirements 3.1 gauge accuracy level the indication error is expressed in absolute error. The meter can be divided into three grades according to the indication error, as shown in Table 1.

Table 1 Instrument indication tolerance

Accuracy level indication maximum allowable error /% 1.0 level ± 1.0 2.0 level ± 2.0

5.0 Level* ±5.0

The meter shall comply with the requirements of Table 1 within the range of 6% to 28% moisture content.

The 5.0 level* measuring instrument refers to a measuring instrument that does not specify the type of material or the moisture content of the poplar wood, and any one of them is seeded.

The indication error of the degree shall not exceed ±5.0%. The measuring instrument with the moisture content of poplar shall not exceed the indication error ±2.0%.

3.2 Measuring instrument stability Under the test of environmental conditions, when the power supply voltage changes by 10%, the error caused by the change of indication value, in the moisture content the range of 6%~28% should meet the requirements of Table 2.

Table 2 Instrument Stability Requirements

Accuracy level reading maximum change value /% 1.0 level ± 1.0 2.0 level ± 2.0 5.0 ± 2.0

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