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

**LY/T 1529-2012**

Replacing LY/T 1529-2012

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**Comprehensive energy consumption of plywood production  
(English Translation)**

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## Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1: Structure and Drafting Rules of Standardization Documents" Drafting.

This document replaces LY/T 1529-2012 "Comprehensive Energy Consumption for Plywood Production". Compared with LY/T 1529-2012, the main technical changes as follows.

- a) Part of the scope has been revised (see Chapter 1, Chapter 1 of the 2012 edition);
- b) Deleted the definition of basic energy consumption per unit output of plywood production (see 3.3, 2012 edition of 3.3);
- c) Added the definition of comparable comprehensive energy consumption per unit output of plywood production (see 3.3);
- d) Modified the grading index for the comparable comprehensive energy consumption per unit output of plywood.

Comparable comprehensive energy consumption per unit output, comparable comprehensive energy consumption per unit output of the entire process (see Chapter 4, Chapter 4 of the 2012 edition);

- e) Revised the reference standards of test instruments (see 6.1.1, 6.1.1 of the 2012 edition);
- f) Added thickness correction factor (see 5.4.4);
- g) Modified the output correction factor (see 5.4.1, 5.4.1 of the 2012 edition);
- h) The reference document LY/T 2394 Management Regulations for Energy Measuring Instruments for Forestry Enterprises has been added (see Chapter 2);
- i) Modified the excellent, good, and qualified categories in the comparable comprehensive energy consumption grading index for the unit output of plywood and revised it to the first, second, and third level (See Chapter 4, Chapter 4 of the 2012 edition);
- j) Modified the calculation formula of comparable comprehensive energy consumption for plywood production (see 5.3).

This document was proposed by the Forestry Energy Management Sub-Technical Committee of the National Energy Foundation and Management Standardization Technical Committee (SAC/TC20/SC7) and focus on it.

## 1 Scope

This document defines the terms and definitions of the comprehensive energy consumption for the production of ordinary plywood, and specifies the comparable comprehensive energy consumption per unit output of ordinary plywood.

Grading indicators, calculation methods and principles of energy consumption, energy consumption testing and measurement requirements.

This document is applicable to the calculation and index assessment of the production energy consumption of ordinary plywood enterprises using hardwood and conifer logs as raw materials.

## 2 Normative references

The content of the following documents constitutes an indispensable clause of the cost document through normative references in the text. Among them, dated quotations Only the version on that date is applicable to this document. For undated references, the latest version (including all amendments) is applicable to this file.

GB/T 2589 General Rules for Comprehensive Energy Consumption Calculation GB/T 6422 Guidelines for Enterprise Energy Consumption Measurement and Testing GB/T 9846 ordinary plywood GB/T 15316 General Rules for Energy-saving Monitoring Technology GB 17167 General rules for the provision and management of energy measuring instruments for energy-consuming units LY/T 2394 Management Specification for Energy Measuring Instruments for Forestry Enterprises

### 3 Terms and definitions

The following terms and definitions defined in GB/T 9846 apply to this document.

Comprehensive energy consumption of plywood production the actual amount of energy consumed by ordinary plywood production enterprises during the statistical reporting period shall be converted into the specified calculation method and unit respectively.

The calculated sum.

"Comprehensive energy consumption of unit output plywood" product" Statistics report the ratio of the comprehensive energy consumption of ordinary plywood production to the output of qualified ordinary plywood during the same period.

Ordinary plywood production unit output comparable comprehensive energy consumption basic energy consumption of unit output plywood product in the ordinary plywood production process, the annual production of plywood is  $60000\text{m}^3 \leq M < 80000\text{m}^3$ , and the monthly average temperature is  $20^\circ\text{C} \leq T < 35^\circ\text{C}$  when the thickness is  $12\text{ mm} < H \leq 15\text{ mm}$ , the amount of energy consumed to produce  $1\text{m}^3$  qualified ordinary plywood used under dry conditions.

Direct production system Operations directly related to ordinary plywood production activities, including material preparation, veneer peeling, veneer drying, veneer finishing, glue hot pressing, refer to Appendix A for the general name of sawing and sanding, finished product storage and other processes.

Indirect production system Production activities that provide supporting services for direct production, including auxiliary production systems and auxiliary production systems.

Auxiliary production system Provide three waste treatment, production equipment maintenance, compressed air supply, heating (or cooling) and lighting of the production workshop for direct production.

Subsidiary production system Provide heating (or cooling) and lighting for warehouses, production-related public places, etc. for direct and indirect production.

4 Comparable comprehensive energy consumption classification per unit output of ordinary plywood the grading values of the comparable comprehensive energy consumption per unit output of ordinary plywood are shown in Table 1.

#### 5.1 Calculation of comprehensive energy consumption for ordinary plywood production

The calculation of comprehensive energy consumption for ordinary plywood production is carried out according to formula (1) or (2).

#### **5.4.1 Annual production correction factor**

The annual output correction coefficient  $K_c$  is shown in Table 2.

#### **5.5 Calculation principle of comprehensive energy consumption for ordinary plywood production**

The calculation principle of comprehensive energy consumption for ordinary plywood production should comply with the relevant regulations of GB/T 2589. Refer to the attachment for the conversion coefficient of standard coal for various energy sources Record B.

#### **6.1.1 Measuring instruments**

The equipment and management of energy measuring instruments for energy-consuming units shall meet the requirements of GB 17167 and LY/T 2394.

#### **6.1.2 Test method**

Tests are carried out when the energy consuming unit is in normal production and the working conditions of the production equipment are stable. The test method should meet the requirements of GB/T 15316 and GB/T 6422.

#### **6.2.1 Measurement of steam consumption**

Install steam flow meters in the production workshop to measure the amount of steam consumed.

#### **6.2.2 Measurement of electric energy consumption**

Install an electric energy meter in the production workshop to measure the consumed electric energy.

#### **6.2.3 Measurement of water consumption**

Install a water meter in the production workshop to measure the amount of water consumed.

#### **6.2.4 Measurement of compressed air**

The energy consumption of compressed air is calculated based on the actual power consumption of the air compressor.