

ICS 65.020.01
CCS B 90

LY

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

LY/T 1068-1992

**Kiln drying process specification for sawn timber
(English Translation)**

Issued on: September 7, 2022

Implemented on: January 1, 2023

Issued by: State Forestry and Grassland Administration

Table of Contents

- Foreword
- 1 Scope
- 2 Normative references
- 3 Terms and Definitions
- 4 Stacking requirements

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 for Standardization Documents" drafting.

This document replaces LY/T 1068-2012 "Kiln Drying Process Specification for Sawn Timber". Compared with LY/T 1068-2012, except for structural adjustment and in addition to editorial changes, the main technical changes are as follows.

- Changed the scope of application of the standard (see Chapter 1, Chapter 1 of the 2012 edition);
- Increased the thickness requirements of sawn timber in the same kiln (see 4.2, 4.2 of the 2012 edition);
- Increased the treatment of precious tree species and hard-to-dry sawn timber before entering the kiln (see 4.4);
- Changed the spacer spacing (see 4.10, 4.9 of the 2012 edition);
- Increased the requirements for the position of the spacer when the length of the sawn timber in the same pile is different (see 4.12);
- When the drying kiln adopts a fully automatic or semi-automatic control system, the selection rules for the inspection board are added (see 5.1.7);
- Added operational requirements (see 7.1.6);
- Changed the terms of the terms, changing "lumber" and "lumber" to "sawn timber" in the text, "humidity" to "relative humidity" and "tensile stress" to "Tensile stress" (see 4.1, 4.6, 4.7, 7.2.2, 7.3.3, 7.4.4, 7.3.1, 4.1, 4.5, 4.6, 7.2.2, 7.3.3, 7.4.4, 7.3.1);
- Added the Latin name of the tree species (see Table A.1, Table A.3, Table A.1, Table A.3 of the 2012 edition);

--- Adjusted the reference number (see Table A.2, Table A.4, Table A.2 and Table A.4 of the 2012 edition).

Please note that some contents of this document may refer to patents. The issuing agency of this document assumes no responsibility for identifying patents.

1 Scope

This document specifies the stacking requirements, moisture content inspection board, recommended benchmark, drying process rules, and quality inspection of sawn timber kiln drying process regulations.

This document is applicable to conventional sawn timber drying with humid air and superheated steam at normal pressure as the medium.

2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text. Among them, dated references for documents, only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to this document.

GB/T 1931-2009 Method for Determination of Moisture Content of Wood GB/T 6491-2012 Drying quality of sawn timber GB/T 15035 Wood Drying Terms

3 Terms and Definitions

The terms and definitions defined in GB/T 15035 apply to this document.

4 Stacking requirements

4.1

The sawn timber of different tree species should be dried separately. When the amount of sawn timber is less than one kiln, it is allowed to combine tree species with similar drying characteristics and initial moisture content Kiln dried.

4.2

The thickness of sawn timber dried in the same kiln should be similar, and the thickness difference should be controlled within $\pm 5\text{mm}$.

4.3

When the difference in the initial moisture content of the wet sawn timber in the same kiln exceeds 15%, and the difference in the initial moisture content of the air-dried sawn timber exceeds 7.5%, they should be dried separately.

4.4

For precious tree species and difficult-to-dry sawn timber, cut off or coat the end face with serious end cracks before entering the kiln to avoid further expansion of surface cracks and end cracks.

4.5

For railcar type kilns, the sawn timber with different lengths should be properly matched so that the total length of the pile can be adapted to the length of the kiln. The kiln is loaded with a forklift, and the material stack should be the same as the kiln to match the width.

4.6

The length, width and height of the pile of materials shall meet the design requirements of the drying kiln. When the amount of sawn timber is less than one kiln, on the premise of ensuring the stability of the timber pile, the width or height of the stack can be appropriately reduced according to the situation.

4.7

For forced circulation drying kilns, the sides of each layer of sawn timber should be close together and an appropriate vertical air passage should be reserved.

4.8

The sides of the whole sawn timber pile shall be flush. The sides of the raw sawn timber pile should be as flush as possible, and the ends of the pile should be flush with one end.

4.9

The spacer is made of dry sawn timber with small deformation, high hardness, and no defects such as decay and discoloration; the section size of the spacer. 25mmx30mm, Planed on all sides, the thickness tolerance is $\pm 1\text{mm}$.

4.10

Spacing of spacers. Determined according to tree species, timber length and timber thickness, generally 0.4m~0.6m. The sawn timber of broad-leaved trees and thin timber shall be taken as a small value, and the sawn timber of coniferous trees shall be Larger values are used for thick and thick materials. Coniferous sawn timber with a thickness of more than 60mm can be enlarged to 1.2m.

Reduce the spacer spacing.

4.11

The spacers of the upper and lower layers of the pile should be kept on the same vertical line, and fall on the crosspiece of the timber truck or the supporting beam at the bottom of the pile. each in the stack Layer spacer thickness should be consistent.