

PAMPHLET

05

MEASUREMENT, DIMENSIONS AND ALLOWANCES OF SAWN TROPICAL TIMBER

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1. MEASUREMENT

In the international tropical timber trade, sawn timber dimensions are measured using the metric system (dimensions expressed in metres and sub-units of a metre) or the imperial system¹ (dimensions expressed in feet and inches).

Unless otherwise specified², **the reference moisture content for measuring the dimensions of sawn timber is 20%.**

1.1. LENGTH

Shortest distance measured on the piece between the end straight sections, expressed in metres (m) rounded down to the nearest decimetre when the metric system is used, or in whole feet for the imperial system.

1.2. WIDTH

Shortest distance between the two edges, expressed:

- in centimetres (cm) or millimetres (mm) rounded down to the nearest centimetre when the metric system is used,
- in inches (in.) for the imperial system; the measurement is rounded up or down to the nearest inch.

If the contract is drawn up for timber of different widths, it may provide for the widths to be measured using a 10-metre tape (developed measurement).

1.3. THICKNESS

Measured at the thinnest point of the piece more than 10 cm (or six inches for the imperial system) from the ends, and expressed:

- in millimetres when the metric system is used,
- in inches for the imperial system.

1. Modern legislation defining the imperial system of units is given in the Weights and Measures Act 1985: <https://www.legislation.gov.uk/ukpga/1985/72>

2. See pamphlet 4. **Wood moisture content and drying levels**

These rules of measurement of the three dimensions present variants for Avivés industriels parallèles (AIP, industrial parallel sawn timber) and Avivés industriels non-parallèles (AINP, industrial non-parallel sawn timber) (see pamphlet 3. **Main grading rules for sawn tropical timber**).

In the contractual documents, the dimensions of the sawn timber are indicated in the order thickness - width - length.

1.4. VOLUME

Expressed in cubic metres to three decimal places when the metric system is used or in cubic feet for the imperial system, and determined from the nominal dimensions as follows:

[thickness x width x length x number of pieces] in the case of a fixed width,
[thickness x total width x length] in the case of variable widths.

2. DIMENSIONS AND ALLOWANCES

2.1. WHAT IS THE REASON FOR ALLOWANCES?

Timber must be sawn to dimensions greater than its contractual dimensions in order to take account of (1) drying shrinkage on thickness and width measurements; (2) mitre cuts and end splits on length measurements (end splits which may or may not be associated with infiltration of “anti-split” products at the end of the pieces).

These allowances should not be confused with measurement tolerances: they are systematically applied, whereas measurement tolerances correspond to the unavoidable margin of error between the measured value and the true value.

Of course, allowances are not applied to dried (KD) timber.

2.2. LENGTH

2.2.1 Metric system

Unless there is a contractual clause to the contrary, lengths exceed 1.80 m and are usually multiples of 10 cm, or 30 cm in some contracts.

Sawn timber less than 1.80 metres long are called shorts.

Sawn timber over 1.80 m in length must always be cut 5 cm longer.

Shorts measuring between 0.30 m and 0.90 m must always be cut 2 cm longer.

Shorts between 0.90 m and 1.70 m must always be cut 3 cm longer.

2.2.2. Imperial system

Lengths exceed 8 feet and counted in multiples of feet, with a maximum allowance of 6”.

2.3. WIDTH

2.3.1. Metric system

Unless otherwise stipulated in the contract, widths exceed 150 mm and are multiples of 10 mm, with a tolerance of 10% for pieces between 100 and 140 mm wide.

Narrows are sawn timber less than 15 cm wide.

No allowances are applied to widths as they are rounded down to the nearest centimetre, giving a sufficient margin.

2.3.2. Imperial system

Common widths are greater than 6", in multiples of an inch.

Width	< 6"	6" to 8"	8" to 10"	> 10"
allowance	1/4"	3/8"	1/2"	5/8"

2.4. THICKNESS

2.4.1. Metric system

The following table shows the recommended allowance by thickness range for sawn timber:

Thickness	16 to 49 mm	50 to 99 mm	100 to 149 mm	150 mm and over
Allowance	2 mm	3 mm	4 mm	5 mm

2.4.2. Imperial system

Thickness	<1"	1"	1¼"	1½"	1¾" *	2"	2½"	3"	3½" *	4"	5" *	6" *	> 6"
Allowance	1/8"			3/16"			¼"						

* infrequent thicknesses

BIBLIOGRAPHY

ATIBT / Materials & Standardisation Commission, 2022. Minutes of the Commission meeting of 18 October 2022, 11 p.

ATIBT / ATIBT Commission IV, 1988. Les contrats et usages recommandés dans le négoce international des bois tropical. 36 p.

ATIBT / ATIBT Arbitration Chamber, 2001. Litiges & Réclamations - Disputes & Claims. Mixed French-English document, 24 p.

ATIBT, 2005. Règles de mesurage - Rules of mensuration. Mixed French-English document, 28 p.

ATIBT / P. Martin & M. Vernay, 2016. [User guide for eco-certified African timber in Europe](#), 98 p.

ATIBT, 2017. Règles de classement conventionnelles des sciages avivées africains - mai 2017, 2 p.

MTIB, 2009. Malaysian Grading Rules for Sawn Hardwood Timber (MGR). 109 p.