Lumber sizes: nominal vs actual (US) and CLS / EN 336 (UK)

What a 2x4 really measures, and the standard UK sawn softwood and CLS sizes.

US softwood lumber, nominal vs dry dressed size

PS 20 minimum dressed dry sizes (19% moisture or less).

NOMINAL	ACTUAL (IN)	ACTUAL (MM)
1x2	3/4 × 1-1/2 in	19 × 38 mm
1x3	3/4 × 2-1/2 in	19 × 64 mm
1x4	3/4 × 3-1/2 in	19 × 89 mm
1x6	3/4 × 5-1/2 in	19 × 140 mm
1x8	3/4 × 7-1/4 in	19 × 184 mm
1x10	3/4 × 9-1/4 in	19 × 235 mm
1x12	3/4 × 11-1/4 in	19 × 286 mm
5/4x6	1 × 5-1/2 in	25 × 140 mm
2x2	1-1/2 × 1-1/2 in	38 × 38 mm

NOMINAL	ACTUAL (IN)	ACTUAL (MM)
2x3	1-1/2 × 2-1/2 in	38 × 64 mm
2x4	1-1/2 × 3-1/2 in	38 × 89 mm
2x6	1-1/2 × 5-1/2 in	38 × 140 mm
2x8	1-1/2 × 7-1/4 in	38 × 184 mm
2x10	1-1/2 × 9-1/4 in	38 × 235 mm
2x12	1-1/2 × 11-1/4 in	38 × 286 mm
4x4	3-1/2 × 3-1/2 in	89 × 89 mm
4x6	3-1/2 × 5-1/2 in	89 × 140 mm
6x6	5-1/2 × 5-1/2 in	140 × 140 mm

Dry = 19% MC max. Green sizes are slightly larger (e.g. 2x4 green 1-9/16 x 3-9/16). 6x6 from timber rule (1/2 in off). mm values are PS 20's metric dressed sizes.

UK sizes

CLS/ALS studwork is planed to exact size; EN 336 target sizes are at 20% moisture.

CLS / ALS STUD SIZES
38 × 63 mm
38 × 89 mm
38 × 114 mm
38 × 140 mm
38 × 184 mm
38 × 235 mm
38 × 285 mm

CLS/ALS studwork is 38 mm thick in widths 63, 89, 114, 140, 184, 235 and 285 mm, with rounded arrises.

SIZE RANGE	TC1	TC2
<100 mm	-1/+3 mm	-1/+1 mm
100-300 mm	-2/+4 mm	-1.5/+1.5 mm
>300 mm	-3/+5 mm	-2/+2 mm

EN 336 tolerance classes (permitted deviation). At 20% MC. No minus tolerance on length.

- EN 336 widths sawn at 38 mm thick (UK): 75, 100, 115, 125, 138, 150, 175, 200, 225, 250, 275, 300 mm.
- UK/Irish structural softwood lengths step in 300 mm increments.
- US softwood lumber comes in 1 ft or 2 ft length multiples; 2 ft (even) lengths are usual for construction lumber.
- Lumber 5 in nominal or thicker is classed as timbers; 5-6 in timbers dress 1/2 in under nominal.
- Softwood thickness and width change about 0.25% per 1% change in moisture content (below fibre saturation).

Sources (checked 2026-10-23): **COFORD (Dept. of Agriculture, Food and the Marine, Ireland)**: Wood Technology Ireland No. 10: Timber sizes - solid timber for structural use (2020); **Edinburgh Napier University, Centre for Wood Science and Technology**: EN 336 customary sizes (D. Ridley-Ellis, 2016); **NIST / American Lumber Standard Committee**: Voluntary Product Standard PS 20-20, American Softwood Lumber Standard; **USDA Forest Service, Forest Products Laboratory**: Wood Handbook (FPL-GTR-282), Chapter 6: Commercial Lumber, Round Timbers, and Ties.

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