

Environmentally friendly

Low energy product



constructional timber.

tips

- Use strength graded and marked timber
- See BS 5268 for guidance
- See BS 4978 1996 for visually graded softwoods
- See BS EN 519 1995 for machine graded softwoods
- See BS 5756 1997 for hardwoods
- Timber with similar strength properties are grouped into classes
- Grades CI4-C40 show which softwood species apply in which grade
- Grades D30-D70 apply to hardwoods
- The higher the number, stronger the grade.

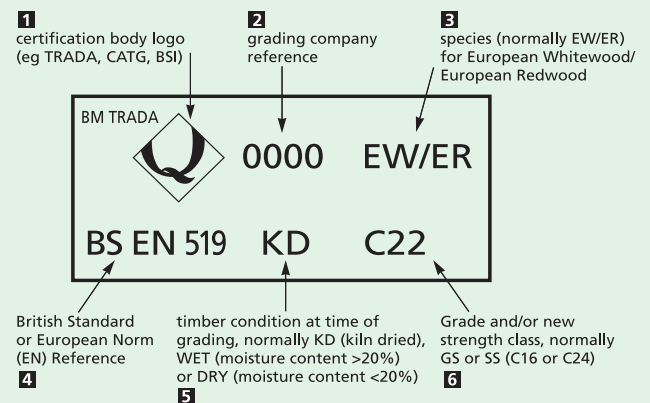
species

- Mainly spruce and pine.

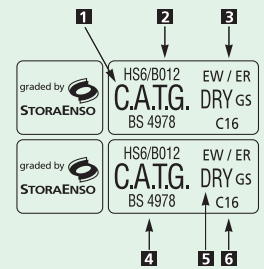
specifications

- Available in a wide range, see chart below.

markings



- The standard system within the UK is also used on imports from Scandinavia, Europe, Canada and USA
- Softwood (within BS 4978) has two descriptions:
GS = General Structural
SS = Special Structural



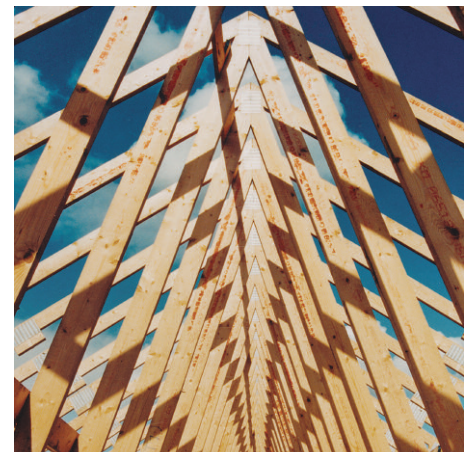
- Hardwood (within BS 5756) has three:
HS = Tropical hardwoods
THA/THB - referring to timber with a cross section of 20,000mm² or more and a thickness of 100mm or more
TH1/TH2 - referring to timber with a cross section of less than 20,000mm² and a thickness less than 100mm.
For more information and strength charts see www.trada.co.uk

Span tables for domestic floor joists: C16 Timber

Joist size (mm)	Dead load (kN/m ²) supported by joist, excluding joist weight								
	up to 0.35			0.35 – 0.55			0.55 – 0.85		
	400mm	450mm	600mm	400mm	450mm	600mm	400mm	450mm	600mm
	Maximum clear span of joist (m)								
47 x 122	2.54	2.45	2.16	2.46	2.35	2.06	2.34	2.22	1.95
47 x 147	3.06	2.94	2.67	2.96	2.84	2.58	2.82	2.71	2.46
47 x 170	3.53	3.40	3.08	3.41	3.28	2.98	3.26	3.13	2.84
47 x 195	4.04	3.89	3.53	3.91	3.76	3.41	3.74	3.59	3.25
47 x 220	4.55	4.38	3.98	4.40	4.23	3.84	4.21	4.04	3.67
75 x 195	4.69	4.53	4.13	4.55	4.38	3.99	4.36	4.19	3.81
75 x 220	5.12	4.98	4.65	5.00	4.86	4.49	4.84	4.70	4.30

Span tables for domestic floor joists: C24 Timber

Joist size (mm)	Dead load (kN/m ²) supported by joist, excluding joist weight								
	up to 0.35			0.35 – 0.55			0.55 – 0.85		
	400mm	450mm	600mm	400mm	450mm	600mm	400mm	450mm	600mm
	Maximum clear span of joist (m)								
47 x 122	2.83	2.72	2.47	2.74	2.63	2.39	2.62	2.51	2.25
47 x 147	3.41	3.28	2.98	3.29	3.17	2.87	3.15	3.02	2.74
47 x 170	3.93	3.78	3.44	3.80	3.66	3.32	3.63	3.49	3.17
47 x 195	4.50	4.33	3.94	4.35	4.19	3.80	4.16	4.00	3.63
47 x 220	4.96	4.82	4.43	4.83	4.70	4.28	4.67	4.51	4.09
75 x 195	5.08	4.94	4.59	4.95	4.82	4.44	4.80	4.66	4.25
75 x 220	5.54	5.39	5.03	5.41	5.26	4.91	5.24	5.09	4.75



floor joists

- Use kiln dried softwood CI6
- Mainly spruce, for its strength
- Use grade stamped timber compliant with BS 5268
- Cutting to a smaller size will invalidate the grade stamp
- Use pressure treated timber for extended use
- Regularised joists provide accurate widths to 1mm of original size
- Lengths from 3.0 to 6.0 metres.



roofing

- Use kiln dried softwood from CI6 to C24
- Check if SS grade is needed for large, load-bearing sections
- Always check grade and strength before using timber for structural purposes
- Tiling battens should comply with BS 5534 : 2003 and be treated.



studding

Small sectional timber for frameworks for walls/ceilings and partitions

- Use CI6 kiln dried softwood
- BS EN 1313-1:1997 covers softwood sizes.

Typical Sizes

- 47mm x 75mm
- 47mm x 100mm
- 47mm x 150mm

Species

Mainly spruce

- Good strength properties
- Finish can be sawn or planed
- Planed is easier to handle, and consistent dimensions make fitting plasterboard and other sheet materials easier.

CLS timber

Surfaced timber or CLS (Canadian Lumber Sizes) is widely used for studding. It has 3mm radius eased edges and consistent dimensions

- Sizes are covered by BS EN 131-1 and BS EN 336.

Typical sizes

- 38mm x 63mm
- 38mm x 89mm
- 38mm x 140mm

Typical lengths

- From 1.8m to 6.0m or more
- Increments are 300mm
- Most common lengths are 2.1m, 2.4m and 4.2m.

for more information

Technical information • www.trada.co.uk Tiling battens • www.johnbrash.co.uk Suppliers • www.ttf.co.uk • www.woodforgood.com