

Masonite beams – UK Domestic Floor Span Tables OSB P5 Particle Board web

(based on ETA-12/0018 dated 14/08/2018)

Clear span tables in (m) - Eurocode 5 (BS EN 1995-1-1/A1+A2) + UK National Annex

Domestic Floor – Service Class 1

Series		[OSB web] - Clear span (m) - S.Cl. 1			[P5 web] - Clear span (m) - S.Cl. 1		
		400	480	600	400	480	600
HL (C18)	HL 220 (47x220 - C18)	3.41	3.31	3.17	3.27	3.17	3.04
	HL 240 (47x240 - C18)	3.75	3.63	3.47	3.57	3.47	3.32
	HL 300 (47x300 - C18)	4.68	4.51	4.29	4.46	4.30	4.10
HL (C24)	HL 220 (47x220 - C24+)	4.21	4.03	3.70	4.19	3.93	3.60
	HL 240 (47x240 - C24+)	4.45	4.26	4.00	4.42	4.23	3.89
	HL 300 (47x300 - C24+)	5.09	4.88	4.62	5.05	4.84	4.58
H	H 220 (47x220 - C30+)	4.35	4.17	3.89	4.32	4.13	3.78
	H 240 (47x240 - C30+)	4.59	4.40	4.18	4.56	4.37	4.09
	H 300 (47x300 - C30+)	5.25	5.04	4.79	5.21	5.00	4.76
	H 350 (47x350 - C30+)	5.75	5.51	5.26	5.70	5.47	5.22
	H 400 (47x400 - C30+)	6.21	5.96	5.49	6.15	5.90	5.27
HM	HM 220 (60x220 - C30+)	4.60	4.41	4.19	4.57	4.38	4.08
	HM 240 (60x240 - C30+)	4.86	4.65	4.42	4.82	4.62	4.39
	HM 300 (60x300 - C30+)	5.55	5.32	5.08	5.51	5.28	5.04
	HM 350 (60x350 - C30+)	6.07	5.82	5.57	6.02	5.77	5.52
	HM 400 (60x400 - C30+)	6.56	6.29	5.89	6.50	6.23	5.66
HI	Hi 220 (70x220 - C30+)	4.76	4.56	4.34	4.73	4.53	4.27
	Hi 240 (70x240 - C30+)	5.03	4.82	4.58	4.99	4.78	4.55
	Hi 300 (70x300 - C30+)	5.75	5.51	5.26	5.70	5.47	5.22
	Hi 350 (70x350 - C30+)	6.29	6.03	5.76	6.24	5.97	5.71
	Hi 400 (70x400 - C30+)	6.78	6.50	6.22	6.73	6.45	6.16
HB	HB 220 (97x220 - C30+)	5.12	4.91	4.68	5.08	4.87	4.64
	HB 240 (97x240 - C30+)	5.41	5.18	4.94	5.36	5.13	4.90
	HB 300 (97x300 - C30+)	6.18	5.92	5.66	6.13	5.87	5.61
	HB 350 (97x350 - C30+)	6.76	6.47	6.19	6.70	6.41	6.13
	HB 400 (97x400 - C30+)	7.29	6.98	6.67	7.23	6.92	6.61
	HB 450 (97x350 - C30+)	7.82	7.49	7.16	7.75	7.42	7.08
	HB 500 (97x400 - C30+)	8.29	7.94	7.20	8.22	7.86	6.92

The above tables are based on the following design assumptions:

- 1) Spans are calculated for uniform loading of: 0.50 kN/m² dead load ; 0.25 kN/m² partition load ; 1.50 kN/m² imposed load
- 2) Loading allows for a 22mm chipboard deck and direct applied 15mm plasterboard ceiling
- 3) Local resistance has been verified under 2.0 kN imposed concentrated load in accordance with BS EN 1991-1-1, §6.2.1.3(P)
- 4) Deflections: w_{inst} is limited to L/333 or 12mm whichever is the lowest ; $w_{net,fin}$ is limited to L/250
- 5) Vibration design in accordance with UK NA to BS EN 1995-1-1 dated 2012-11
- 6) Bearing resistance assuming: 45mm end bearing ; 89mm intermediate bearing ; no web stiffeners ; no concentrated load above
- 7) Resistances assume loadsharing i.e. 4 or more joists at no more than 610 centres ($k_{sys} = 1.10$)
- 8) Spans listed are worst case between simple and continuous span situation (the latter assuming two equal clear spans)

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Clear span tables in (m) - Eurocode 5 (BS EN 1995-1-1/A1+A2) + UK National Annex

Domestic Floor – Service Class 2

Series		[OSB web] - Clear span (m) - S.Cl. 2			[P5 web] - Clear span (m) - S.Cl. 2		
		400	480	600	400	480	600
HL (C18)	HL 220 (47x220 - C18)	3.41	3.31	3.17	3.27	3.17	3.14
	HL 240 (47x240 - C18)	3.75	3.63	3.47	3.58	3.47	3.32
	HL 300 (47x300 - C18)	4.68	4.51	4.29	4.46	4.30	4.10
HL (C24)	HL 220 (47x220 - C24+)	4.16	3.88	3.56	4.06	3.78	3.45
	HL 240 (47x240 - C24+)	4.45	4.19	3.85	4.39	4.08	3.73
	HL 300 (47x300 - C24+)	5.09	4.88	4.62	5.05	4.84	4.53
H	H 220 (47x220 - C30+)	4.35	4.08	3.74	4.27	3.97	3.63
	H 240 (47x240 - C30+)	4.59	4.40	4.04	4.56	4.29	3.92
	H 300 (47x300 - C30+)	5.25	5.04	4.79	5.21	5.00	4.76
	H 350 (47x350 - C30+)	5.75	5.51	5.26	5.70	5.47	5.22
	H 400 (47x400 - C30+)	6.21	5.96	5.49	6.15	6.90	5.27
HM	HM 220 (60x220 - C30+)	4.60	4.41	4.04	4.57	4.29	3.91
	HM 240 (60x240 - C30+)	4.86	4.65	4.36	4.82	4.62	4.23
	HM 300 (60x300 - C30+)	5.55	5.32	5.08	5.51	5.28	5.04
	HM 350 (60x350 - C30+)	6.07	5.82	5.57	6.02	5.77	5.52
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HI	Hi 220 (70x220 - C30+)	4.76	4.56	4.23	4.73	4.49	4.09
	Hi 240 (70x240 - C30+)	5.03	4.82	4.58	4.99	4.78	4.43
	Hi 300 (70x300 - C30+)	5.75	5.51	5.26	5.70	5.47	5.22
	Hi 350 (70x350 - C30+)	6.29	6.03	5.76	6.24	5.97	5.71
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	HB 400 (97x400 - C30+)	7.29	6.98	6.67	7.23	6.92	6.61
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