

British Narrow Gauge Flat Bottom Rail Dimensions

This table shows prototype flat bottom rail and comparable model rail dimensions for the weights of rail typically used on narrow gauge railways. See notes below.

Weight (lb/yd) or Model Rail	Prototype Dimensions (1)(3)											Scale Size in 7mm (1)(4)							
	Rail height			Head width			Foot width			Min web thickness		Rail height (2)		Head width		Foot width		Web thickness	
	(imp)	(in)	(mm)	(imp)	(in)	(mm)	(imp)	(in)	(mm)	(imp)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
ME Code 55	2 3/8	2.39	60.83	1 1/8	1.13	28.76	2 3/8	2.39	60.83			1.40	0.055	0.66	0.026	1.40	0.055	0.23	0.009
20lb	2 1/2	2.50	63.50	1 3/8	1.38	34.93	2 1/2	2.50	63.50	<i>[19/64]</i>	0.30	1.46	0.057	0.80	0.032	1.46	0.057		
Peco IL-1	2 11/16	2.69	68.36	1 5/16	1.30	33.09	2 1/8	2.13	53.99			1.57	0.062	0.76	0.030	1.24	0.049		
30lb	3 [2 31/32]	3.00	76.20	1 1/2	1.50	38.10	2 3/4	2.75	69.85	<i>[23/64]</i>	0.36	1.75	0.069	0.88	0.034	1.60	0.063		
ME 70	3 1/16	3.05	77.42	1 5/16	1.31	33.18	2 15/16	2.96	75.21			1.78	0.070	0.76	0.030	1.73	0.068	0.28	0.011
35lb	3 1/8 [3 3/8]	3.13	79.38	1 3/4	1.75	44.45	3 1/4	3.25	82.55	<i>[21/64]</i>	0.33	1.82	0.072	1.02	0.040	1.90	0.075		
C&L 4mm "BS110A" FB	3 1/4	3.24	82.30	1 3/8	1.37	34.83	2 27/32	2.85	72.28			1.89	0.074	0.8	0.031	1.66	0.065		
Peco IL-3	3 1/4	3.27	82.95	1 3/8	1.35	34.29	2 15/16	2.96	75.21	11/16	0.70	1.91	0.075	0.79	0.031	1.73	0.068	0.41	0.016
Peco IL-4	3 1/2	3.44	87.37	1 1/8	1.09	27.65	2 3/8	2.35	59.72	7/8	0.87	2.01	0.079	0.64	0.025	1.37	0.054	0.51	0.02
40lb	3 1/2 [3 15/32]	3.50	88.90	1 3/4 [1 51/64]	1.75	44.45	3 1/2 [3 11/64]	3.50	88.90	<i>[31/64]</i>	0.48	2.04	0.080	1.02	0.040	2.04	0.080		
Peco IL-115	3 1/2	3.57	90.57	1 1/2	1.53	38.75	3 1/16	3.03	77.07	5/8	0.62	2.08	0.082	0.89	0.035	1.77	0.070	0.36	0.014
Karlgarin 82/7	3 9/16	3.57	90.68	1 15/16	1.92	48.77	3 1/2	3.48	88.39			2.08	0.082	1.11	0.044	2.03	0.080	0.35	0.014
ME Code 83	3 5/8	3.61	91.80	1 3/8	1.37	34.84	2 15/16	2.96	75.21			2.11	0.083	0.80	0.0315	1.73	0.068	0.33	0.013
45lb	3 3/4	3.75	95.25	1 31/32	1.97	50.01	3 3/4	3.75	95.25			2.19	0.086	1.15	0.045	2.19	0.086		
50lb	3 15/16	3.94	100.01	2 1/16	2.06	52.39	3 15/16	3.94	100.01	<i>[13/32]</i>	0.41	2.30	0.090	1.20	0.047	2.30	0.090		
55lb	4 1/8	4.13	104.78	2 5/32	2.16	54.77	4 1/8	4.13	104.78			2.41	0.095	1.26	0.050	2.41	0.095		
Peco IL-5 (O16.5)	4 5/16	4.29	108.86	1 13/16	1.78		3 15/16	3.91	99.28	1 1/8	1.10	2.5	0.098	1.04	0.041	2.28	0.090	0.64	0.025
60lb	4 5/16 [4 1/2]	4.31	109.54	2 1/4	2.25	57.15	4 5/16	4.31	109.54	<i>[7/16]</i>	0.44	2.52	0.099	1.31	0.052	2.52	0.099		
Karlgarin 100/7	4 3/8	4.35	110.60	2 1/4	2.26	57.51	4 3/8	4.35	110.60			2.54	0.100	1.32	0.052	2.54	0.100	0.48	0.019
ME Code 100	4 3/8	4.35	110.60	1 3/4	1.74	44.24	3 9/16	3.57	90.69			2.54	0.100	1.02	0.040	2.08	0.082	0.38	0.015
65lb	4 7/16	4.44	112.71	2 5/16	2.31	58.74	4 7/16	4.44	112.71			2.59	0.102	1.35	0.053	2.59	0.102		

(1) The dimensions in bold are the primary measurement – the dimensions in italics have been derived from these.

(2) The rail height in inches x 1000 = the code of the rail.

(3) Most prototype dimensions are from the BS11 1905 figures as published on S Scale Model Railway Society website with dimensions in [square brackets] from the latest specifications courtesy of Corus where the quoted dimensions are different from the older standards.

(4) The dimensions of the Peco, ME and Karlgarin rail are from details kindly supplied by Pritchard Patent Products Ltd (Beer, Devon, UK), Micro Engineering Company (Fenton, MO, USA) and Karlgarin Models respectively.

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