

Specification for

Nails —

Part 2: Copper nails

UDC 621.886.2:672.886.2:669.3

Co-operating organizations

The Hardware and Ironmongery Industry Standards Committee, under whose supervision this British Standard was prepared, consists of representatives from the following Government departments and scientific, industrial and professional organizations:

British Hardware Federation*
 British Lock Manufacturers' Association
 British Plastics Federation
 British Steel Industry
 Copper Development Association*
 Department of the Environment
 Department of the Environment, Building Research Establishment*
 Greater London Council
 Guild of Architectural Ironmongers
 Institution of Municipal Engineers
 Metal Window Federation of Great Britain
 Metropolitan Police
 National Building and Allied Hardware Manufacturers' Federation*
 National Federation of Building Trades Employers*
 Royal Institute of British Architects
 Royal Institution of Chartered Surveyors
 Zinc Development Association

The Government department and scientific, industrial and professional organizations marked with an asterisk in the above list, together with the following, were directly represented on the committee entrusted with the preparation of this British Standard:

Aluminium Federation
 Amalgamated Society of Woodworkers
 British Furniture Manufacturers' Federated Association
 Department of the Environment, Building Research Establishment
 (Princes Risborough Laboratory)
 Engineering Industries Association
 Institute of Iron and Steel Wire Manufacturers
 Steel Nail Association
 Timber Research and Development Association
 Wire Products Association
 Individual manufacturers

This British Standard, having been approved by the Hardware and Ironmongery Industry Standards Committee, was published under the authority of the Executive Board on 31 May, 1974

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Foreword

This British Standard is published in the following separate Parts:

- *Part 1: Steel nails;*
- *Part 2: Copper nails;*
- *Part 3: Aluminium nails.*

This Part of the standard has been prepared under the authority of the Hardware and Ironmongery Industry Standards Committee. It is expressed solely in metric units and relates to 6 types of copper nails at present in common use and to the roves manufactured for use with the two types of copper boat nails specified; it is thus not confined to nails for buildings. No attempt has been made to specify “specials”.

For the benefit of those not conversant with metric diameters of nails, each table in this standard includes a separate column showing the nearest former standard wire gauge (s.w.g.) numbers. These do not form part of the specification. Their inclusion is only intended to be temporary and is planned to be reconsidered by 31 December 1976.

Inch equivalents, if required, may be determined from BS 350, “Conversion factors and tables”.

This Part of the standard replaces BS 1202-2:1966 which was prepared at the request of nail users and manufacturers with the approval of the Code of Practice Drafting Committees responsible for CP 142, “Slating and tiling” and CP 143, “Sheet roof and wall coverings”.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 4, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

1 Scope

1.1 This Part of the standard specifies requirements, including dimensions and finish, for the following types of copper nails and roves.

NOTE The nearest former s.w.g. members are included in a separate column in each table for convenience only. They do not form part of the specification.

- 1) Round lost head nails
- 2) Clout and shingle nails (plain or jagged shank): clout nails are also known as slate, tile or felt nails
- 3) Extra large head felt nails
- 4) Flat head countersunk and rosehead square shank boat nails (round or diamond point)
- 5) Cut clout nails: also known as cut slate nails.

1.2 The types of nail are illustrated in the diagrams accompanying Table 1 to Table 5.

2 Materials

2.1 Wire nails. Wire nails shall be made from copper wire.

2.2 Cut nails. Cut nails shall be made from copper sheet or strip.

2.3 Alloys. If agreed between purchaser and supplier, nails may also be manufactured from alloys containing copper, such as copper-silicon or nickel-copper.

2.4 Roves. Roves shall be made from copper sheet or strip.

3 Workmanship

3.1 Nails shall be straight and true in shape, and free from excessive burrs and flashes which may be detrimental to their use.

3.2 The heads of nails when formed shall be of such a design and thickness as to withstand normal driving.

4 Finish

The finish of wire nails shall be bright; that of cut nails shall be in the "as rolled" condition except for those sides which are made bright by the cutting process. Nails shall be clean and free from excessive oxidation.

5 Dimensions and tolerances

5.1 Wire nails and cut floor brads. The dimensions of wire nails shall be in accordance with Table 1 to Table 4 subject to the following tolerances:

- 1) *Head diameter:*
Round wire nails: $\pm 5\%$ (except for extra large head felt nails, which have a minimum head diameter of 11 mm). 11 mm).

Square section wire nails: $\pm 10\%$.

2) *Shank diameter (dimension D):*

Round wire nails: when diameter is less than 2.65 mm, ± 0.03 mm; when diameter is 2.65 mm and more, ± 0.05 mm.

Square section wire nails: all dimensions D , ± 0.07 mm.

3) *Length:* when diameter is less than 2.65 mm, ± 0.5 mm; when diameter is 2.65 mm and more, ± 0.8 mm.

5.2 Cut slate or clout nails. The dimensions of cut slate or clout nails shall be in accordance with Table 5. No tolerances are specified.

5.3 Roves. The dimensions of roves shall be in accordance with Table 6. No tolerances are specified.

6 Inspection

If the purchaser wishes to inspect the nails or roves at the supplier's works he shall notify the supplier at the time of placing the order.

7 Weights

The approximate number of nails and roves per kilogram is given, for general guidance only, in Table 1 to Table 6.

8 Designation for ordering

8.1 When designating copper nails in an enquiry or an order, the following information shall be given.

- 1) Quantity required, by weight
- 2) Type
- 3) Length in millimetres
- 4) Diameter or dimension D in millimetres
- 5) British Standard number
- 6) If roves are required

8.2 Examples:

- 1) 56 kg round lost head nails, 50 mm \times 3.00 mm, to BS 1202-2.
- 2) 100 kg flat head countersunk square shank boat nails (round point), 50 mm \times 3.35 mm, to BS 1202-2, with roves.

9 Certificate of compliance

If required by the purchaser, the supplier shall certify that nails and roves comply with the requirements of this standard.

Table 1 — Dimensions and approximate count of round lost head nails

Length <i>L</i>	Shank diameter <i>D</i>	Approx. no. of nails per kg	Nearest former s.w.g.
mm	mm		
65	3.75	178	9
65	3.35	194	10
50	3.35	292	10
50	3.00	308	11
40	2.65	474	12
40	2.36	554	13

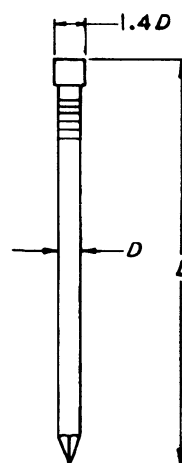
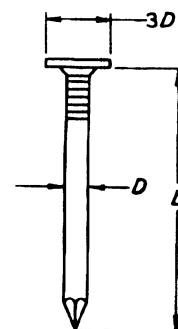
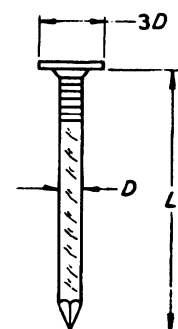


Table 2 — Dimensions and approximate count of clout nails (plain or jagged shank)

Length <i>L</i>	Shank diameter <i>D</i>	Approx. no. of nails per kg	Nearest former s.w.g.
mm	mm		
65	3.75	170	9
65	3.35	195	10
50	3.35	241	10
50	3.00	276	11
50	2.65	327	12
45	3.35	308	10
45	3.00	366	11
45	2.65	456	12
40	3.35	335	10
40	3.00	398	11
40	2.65	460	12
40	2.36	553	13
30	3.35	448	10
30	3.00	550	11
30	2.65	621	12
30	2.36	748	13
25	2.65	740	12
20	2.65	920	12



Plain shank



Jagged shank

(To have small fillet at junction of head and shank)

Table 3 — Dimensions and approximate count of extra large head felt nails

Length <i>L</i>	Shank diameter <i>D</i>	Approx. no. of nails per kg	Nearest former s.w.g.
mm	mm		
25	3.35	440	10
25	3.00	517	11
20	3.35	544	10
20	3.00	627	11
15	3.00	691	11
13	3.00	880	11

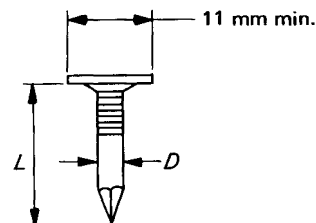
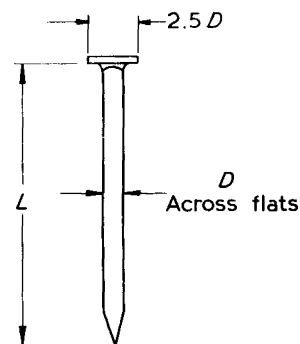
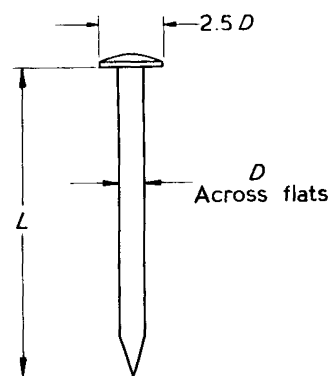


Table 4 — Dimensions and approximate count of flat head countersunk and rosehead square shank boat nails (round or diamond point)

Length <i>L</i>	Shank dimension <i>D</i>	Approx. no. of nails per kg	Nearest former s.w.g.
mm	mm		
150	6.00	22	4
150	5.00	33	6
125	5.60	31	5
125	4.50	44	7
100	5.00	46	6
100	4.00	66	8
90	4.00	81	8
75	4.00	88	8
75	3.75	108	9
75	3.35	132	10
65	4.00	103	8
65	3.35	163	10
65	3.00	198	11
65	2.65	246	12
50	3.35	193	10
50	3.00	255	11
50	2.65	308	12
45	3.35	220	10
45	2.65	330	12
40	2.65	412	12
40	2.36	494	13
40	2.00	688	14
30	2.65	490	12
30	2.36	659	13
30	2.00	862	14
25	2.36	774	13
25	2.00	939	14
25	1.80	1 336	15
20	2.00	1 237	14
20	1.80	1 740	15



Flat head countersunk



Rosehead

**Table 5 — Dimensions and approximate count of cut clout nails
(also known as cut slate nails)**

Length <i>L</i>	Shank diameter <i>D</i>	Approx. no. of nails per kg	Nearest former s.w.g.
mm	mm		
50	3.00	275	11
45	2.65	330	12
40	2.65	440	12
30	2.36	627	13
25	2.00	1 298	14

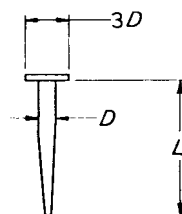


Table 6 — Dimensions and approximate count of roves

Suitable for nails of shank diameter	Outside diameter <i>D</i>	Approx. no. of roves per kg	Thickness of material	Nearest former s.w.g.
mm	mm		mm	
1.80	6.4	3 520	0.9	15
2.00	7.9	2 310	1.0	14
2.36	9.5	1 408	1.0	13
2.65	11.1	946	1.2	12
3.00	11.1	946	1.2	11
3.35	12.7	682	1.2	10
3.75	14.3	495	1.4	9
4.00	15.9	385	1.4	8
5.00	19.1	265	1.6	6



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