

JIS A 5508:2009

NAILS

Approved by

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Quality Control Manager

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Nails

1 Scope

This Japanese industrial standard specifies the nails used for general purpose. However, the materials and methods for connection of nail to be used by automatic nailing machine are not specified her.

2 Normative references

The following standards contain provisions which, though reference in this text, constitute provisions of this Standard. The most recent editions of the standards (Including amendments) indicated below shall be applied.

JIS B 7502	Micrometer calipers
JIS B 7503	Dial gauges
JIS B 7507	Vernier, dial and digital calipers
JIS G 3532	Low carbon steel wires


3 Classification and symbol

The classification of nails shall be as shown in table 1. In addition, the nails shall be classified according to the shape of head and shank as shown in table 2 and table3.

Table 1 Classification and symbol of nails


Classification	Material	Symbol of classification
Low carbon steel wire nail	Low carbon steel	N

Table 2 Classification according to the shape of head

Shape of head	Symbol	Shape
Countersunk head with checkers	DC	

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Table 3 Classification according to the shape of shank

Shape of shank	Symbol	Shape
Smooth	SM	

4 Quality

4.1 Appearance

The appearance of nail shall be as follows :

- a) The head shall be that the upper surface (lower surface in the case of round head) is perpendicular to the centre line of shank and has no noticeable eccentricity. Further, punch marks may can be stamped on the top of nails for the discrimination.
- b) The shank shall be that the surface is free from noticeable flaws, burrs, etc.
In the case of smooth shank, it Shall be smooth.

4.2 Bend of shank

The bend of nail shank shall be 1% or less of length L (see table 4).

5 Shape

The Shape of nails shall be in accordance with table 2 as for the head shape, table 3 as for nail shank shape, and table 4 as for point shape.

6 Dimension and tolerance

The dimension and tolerance of nails shall be as given in tables 4.

7 Material

7.1 Low carbon steel wire

The low carbon steel wire shall be of the quality equivalent or superior to low carbon steel wire for nail manufacturing specified in JIS G 3532.

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8 Test

8.1 Appearance and shape

The appearance and shape of nail shall be tested visually.

8.2 Bend of shank

The bend of shank of the nail shall be tested in such manner that the part except for the point and the gripper marks of neck is measured using a measuring instrument with the precision of 0.01 mm. or more precise or a suitable limit gauge as shown in figure 1. That which the shank is formed with screw or ring shall be performed after shank forming.

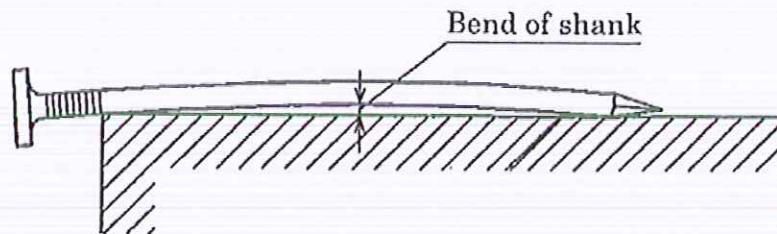


Figure 1 Bend of shank

8.3 Dimension

The measurement of dimensions of nails shall be carried out on each part of nails by means of the measuring devices specified in **JIB B 7502**, **JIS B 7503** or **JIS B 7507** or the devices having the precision equivalent or superior thereto.

9 Inspection

The inspection of nails shall be performed on quality, shape, dimensions, tolerances and materials by using the reasonable sampling inspection method and the results shall conform to the requirements in clauses 4 to 6.

10 Designation of product

The designation of product of nail shall be in the following order.

- a) Classification symbol
- b) Symbol that shows classification according to shape of head

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This may be omitted in other case than stainless steel nails and nails for plasterboard or PN.

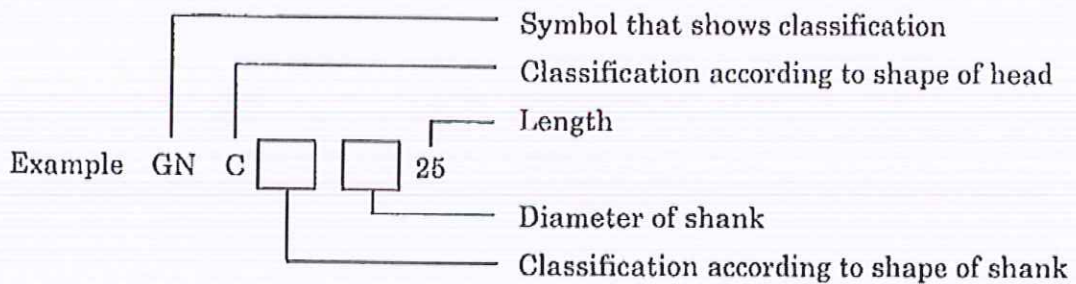
- c) Symbol that shows classification according to shape of shank

This may be omitted in the case of smooth shank and the case of nails for sheathing board and nails for PN of casing head.

- d) Diameter of shank

This may be omitted in other case than the nail for PN.

- e) Length



11 Marking

The product shall be marked with the following items on the outside of every package by suitable method.

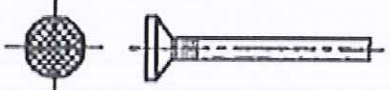
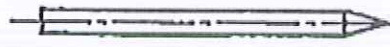
- Classification and designation ¹⁾. However, the nail designation referencing to the head diameter of low carbon steel wire nail N90 or plated low carbon steel wire nail NZ90 shall be "NZ90 : 2005".
- Grade of electroplated coating of zinc, type of hot dip galvanized coating or the detail of equivalent or better rust preventing method.
- Year and month of manufacture or their abbreviation
- Manufacturer's name its abbreviation

Note ¹⁾ It means the designation from table 4.

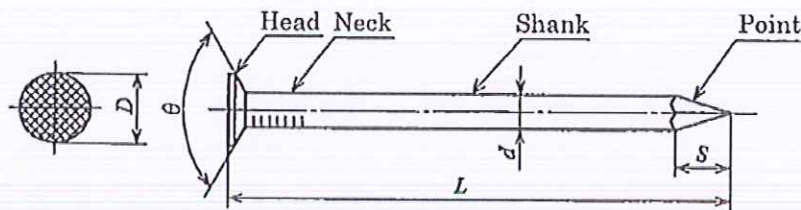
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Table 4 Low carbon steel wire nail

a) Shape of low carbon steel wire nail

Shape of head	Countersunk head with Checkers and point	
Shape of shank And point	Smooth	

b) Dimension of low carbon steel with nail



Unit : mm.

Nominal size	Length L		Diameter of shank d		Length of point S	Diameter of head D		Head angle θ (informative)
	Dimension	Tolerance	Dimension	Tolerance		Dimension	Tolerance	
N19	19	± 1.0	1.50	± 0.05	1.2 or over to and excl. 3.0	3.6	± 0.36	120°
N22	22	± 1.5	1.70	± 0.06	1.4 or over to and excl. 3.4	4.0	± 0.40	
N25	25	± 2.0			1.90	1.5 or over to and excl. 3.8	4.5	
N32	32	± 2.5	2.15	± 0.08	1.7 or over to and excl. 4.3	5.1	± 0.51	
N38	38	± 3.0	2.45	± 0.10	2.0 or over to and excl. 4.9	5.8	± 0.58	
N45	45	± 3.5	2.75	± 0.10	2.2 or over to and excl. 5.5	6.6	± 0.66	
N50	50	± 4.0	3.05	± 0.10	2.4 or over to and excl. 6.1	7.3	± 0.73	
N65	65	± 4.5	3.40	± 0.10	2.7 or over to and excl. 6.8	7.9	± 0.79	
N75	75	± 5.0	3.75	± 0.10	3.0 or over to and excl. 7.5	8.8	± 0.88	
N90a)	90	± 5.0	4.20	± 0.10	3.4 or over to and excl. 8.4	9.8	± 0.98	
N100	100	± 5.0	4.60	± 0.10	3.7 or over to and excl. 9.2	10.3	± 1.03	
N115	115	± 5.0	5.20	± 0.10	4.2 or over to and excl. 10.4	11.5	± 1.15	
N125	125	± 5.0						
N150	150	± 5.0						

Note ^{a)} The head diameter of N90 may be reference till March 31, 2012. In this case, the designation shall be "N90:2005".

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