

# GROOVED NAIL D-HEAD COLLATED



**GUNNEBO**  
FASTENING

BRIGHT / HOT DIP GALVANIZED

Declaration of  
Performance



**Document no:** CE-300141-A4

A nail with a D-shaped head and grooved shank is used for nailing timber items, such as timber studding. Also used for fitting panels, tongued and grooved board, secondary spaced boarding, laths, etc.

**Dimensions:**

d: 2,8 & 31 mm L: 50-90 mm

**Material:**

EN ISO 16120-2

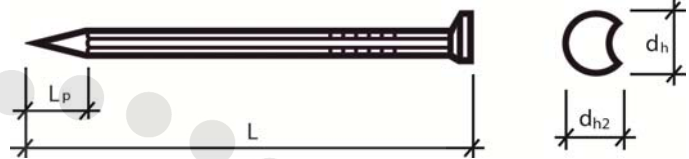
Characteristic tensile strength of wire (fu) in acc. with EN 10218-1, min. 600 N/mm<sup>2</sup>

**Treatment:**

Hot dip galvanized - min. 50 µm

**Angle of strip:**

Straight & wire collated 28°  
Straight & wire collated 34°



## STRAIGHT & WIRE COLLATED 28°

### DIMENSIONS

BRIGHT							
Name	Nominal diameter d [mm]	Total length L [mm]	Head diameter dh [mm]	Head diameter dh2 [mm]	Head thickness t [mm]	Point length lp [mm]	Angle of point [°]
3,1x90	3,0	87,0	5,5	7,0	1,17	4,60	40°
HOT DIP GALVANIZED							
Name	Nominal diameter d [mm]	Total length L [mm]	Head diameter dh [mm]	Head diameter dh2 [mm]	Head thickness t [mm]	Point length lp [mm]	Angle of point [°]
2,8x50	2,8	49,0	5,5	7,0	1,10	4,18	40°
2,8x65		64,0					
2,8x75		73,0					
3,1x90	3,0	87,0	5,5	7,0	1,17	4,60	40°

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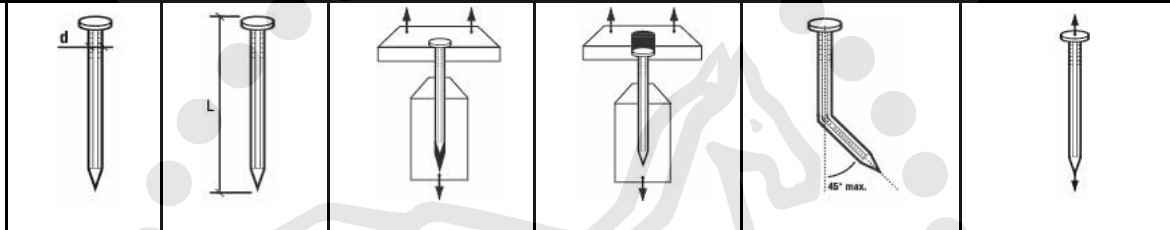
## CHARACTERISTIC LOAD CAPACITY

### BRIGHT

Name	Nominal diameter d [mm]	Total length L [mm]	Withdrawal parameter $f_{ax,k}$ [N/mm <sup>2</sup> ]*	Head pullthrough parameter $f_{head,k}$ [N/mm <sup>2</sup> ]*	Yield moment $M_{y,k}$ [Nmm]	Tensile capacity $f_{tens,k}$ [kN]
3,1x90	3,0	87,0	2,45	14,6	4300	NPD**

### HOT DIP GALVANIZED

Name	Nominal diameter d [mm]	Total length L [mm]	Withdrawal parameter $f_{ax,k}$ [N/mm <sup>2</sup> ]*	Head pullthrough parameter $f_{head,k}$ [N/mm <sup>2</sup> ]*	Yield moment $M_{y,k}$ [Nmm]	Tensile capacity $f_{tens,k}$ [kN]
2,8x50	2,8	49,0	2,45	17,7	3800	NPD**
2,8x65		64,0				
2,8x75		73,0				
3,1x90	3,0	87,0	2,45	14,6	4300	NPD**



\* The withdrawal parameter  $f_{ax,k}$  and the head pull-through parameter  $f_{head,k}$  is tested in wood with a characteristic density of  $\rho_k=350$  kg/m<sup>3</sup> (C24).

\*\* "No Performance Declared"

# GROOVED NAIL D-HEAD COLLATED



BRIGHT / HOT DIP GALVANIZED

Declaration of Performance

## STRAIGHT & WIRE COLLATED 34°



### DIMENSIONS

#### HOT DIP GALVANIZED

Name	Nominal diameter d [mm]	Total length L [mm]	Head diameter d <sub>h</sub> [mm]	Head diameter d <sub>h2</sub> [mm]	Head thickness t [mm]	Point length l <sub>p</sub> [mm]	Angle of point [°]
2,9x50	2,8	49,0	5,5	7,0	1,96	4,18	40°
2,9x65		64,0					
2,9x75		73,0					
2,9x90		87,0					

### CHARACTERISTIC LOAD CAPACITY

#### HOT DIP GALVANIZED

Name	Nominal diameter d [mm]	Total length L [mm]	Withdrawal parameter f <sub>ax,k</sub> [N/mm <sup>2</sup> ]*	Head pullthrough parameter f <sub>head,k</sub> [N/mm <sup>2</sup> ]*	Yield moment M <sub>y,k</sub> [Nmm]	Tensile capacity f <sub>tens,k</sub> [kN]	
2,9x50	2,8	49,0	2,45	17,7	3800	NPD**	
2,9x65		64,0					
2,9x75		73,0					
2,9x90		87,0					

\* The withdrawal parameter f<sub>ax,k</sub> and the head pull-through parameter f<sub>head,k</sub> is tested in wood with a characteristic density of ρ<sub>k</sub>=350 kg/m<sup>3</sup> (C24).

\*\* "No Performance Declared"

## PRODUCT IDENTIFICATION

Following articles which are sold in the brand name GUNNEBO FASTENING are covered by this Declaration of Performance:

#### ARTICLE NUMBER (28°)

**HDG**      **Bright**  
 Z713050    Z711090  
 Z713065  
 Z713075  
 Z713090

#### ARTICLE NUMBER (34°)

Z713350  
 Z713365  
 Z713375  
 Z713390



The manufacturer declares for:

**Grooved nail D-head, bright and hot dip galvanized, wire collated strip, diameter 2,8 & 3,1 mm**

1. Product is in accordance with EN 14592:2008 "Timber Structures – Dowel-type fasteners – Requirements".
2. Initial Type Testing was performed to confirm essential characteristic values in accordance to table ZA.1 in EN 14592. Declared values accompanies with the CE mark on each package and in this technical document.
3. Initial Type Testing is performed by DTI, Danish Technological Institute.  
The results of  $M_{y,k}$  in report DK 474099-2, Taastrup, 2011-04-27.  
The results of  $f_{head,k}$  in report DK 474099-4, Taastrup, 2011-05-15.  
The results of  $f_{u,k}$  in report DK 1302213, Århus, 2012-04-26.
4. For this product the compliance with the conditions of the Annex ZA in EN 14592 are accomplished.
5. A FPC system is established and maintained under the responsibilities of the manufacturer.

**Hot dip galvanized - 50  $\mu$ m, type1. Service class 3.**

The system of attestation of conformity for Timber fasteners used for structural timber products is 3.

This declaration of conformity is valid until any changes in the product, the raw material or the production process is performed, which would significantly change the declared characteristics.

*Gunnebo 2012-08-17, revised 2014-05-14*

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Head of Operation, Claes Arnesson



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