

RING SHANK NAIL COLLATED



ELECTRO GALVANIZED / HOT DIP GALVANIZED / AISI 316/A4

Declaration of Performance



Dokument no: CE-300006-A2

Used for fix boarding, panels and secondary spaced boarding to a timber base

Dimensions:

El.galv.: d: 3,1-3,4 mm L: 45-65 mm

HDG: d: 2,3-3,1 mm L: 48-90 mm

Stainless A4: d: 2,8-3,1 mm L:48-90 mm

Material:

El.galv./HDG: EN ISO 16120-2

Stainless AISI 316/A4: EN 10088

Characteristic tensile strength of wire (f_u) in acc. with EN

10218-1. El.galv./ Hot dip galvanized: min. 600 N/mm²

Stainless: min. 750 N/mm²

Treatment:

El.galv. - min. 20 μ m. Corrosion class C2.

Hot dip galvanized - min. 50 μ m. Corrosion class C4.

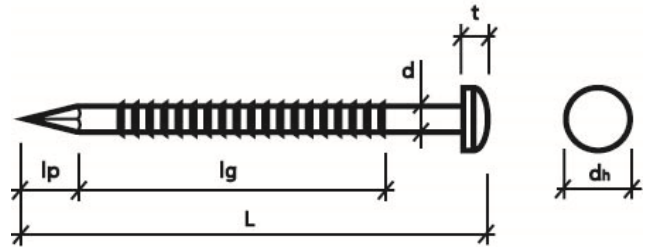
Stainless A4 . Corrosion class C4.

Type of collating:

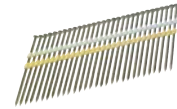
Strip- & plastic collated 21°

Coil- & plastic collated 15°

Coil- & wire collated 15°



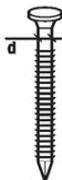

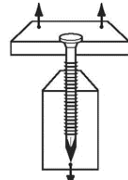
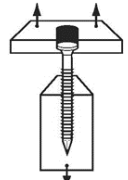


STRIP- & PLASTIC COLLATED 21° DIMENSIONS



AISI 316/A4								
Name	Nominal diameter d [mm]	Total length L [mm]	Threaded length l _g [mm]*	Head diameter d _h [mm]	Head area A _h [mm ²]	Head thickness t [mm]	Point length l _p [mm]	Angle of point (°)
2,8x50	2,8	48,5	26,5	6,2	30,2	0,6	3,9	40°
2,8x65		63,5	50,0					
2,8x75		73,5	53,0	6,9	37,4			
3,1x90	3,1	88,0	70,0	6,9	37,4	0,8	4,3	40°

CHARACTERISTIC LOAD CAPACITY

AISI 316/A4							
Name	Nominal diameter d [mm]	Total length L [mm]	Withdrawal parameter f _{ax,k} [N/mm ²]*	Head pull-through parameter f _{head,k} [N/mm ²]*	Yield moment M _{y,k} [Nmm]	Tensile capacity f _{tens,k} [kN]	ITT report
2,8x50	2,8	48,5	9,7	30,5	3762,0	4,3	TJ-30-9836/5
2,8x65		63,5					
2,8x75		73,5		31,5			
3,1x90	3,1	88,0	10,3	19,1	5280	5,23	TJ-30-9836/10

* The withdrawal parameter f_{ax,k} and the head pull-through parameter f_{head,k} is tested in wood with a characteristic density of $\rho_k = 350 \text{ kg/m}^3$ (C24). When wood with another density is used values shall be multiplied with $\rho_k / 350$.

PRODUCT IDENTIFICATION

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

ARTIKELNUMMER

70426 2355 2356 2357

RING SHANK NAIL COLLATED



ELECTRO GALVANIZED / HOT DIP GALVANIZED / AISI 316/A4

Declaration of Performance

COIL- & PLASTIC COLLATED 15°



DIMENSIONS

HOT DIP GALVANIZED

Name	Nominal diameter d [mm]	Total length L [mm]	Threaded length l _g [mm]*	Head diameter d _h [mm]	Head area A _h [mm ²]	Head thickness t [mm]	Point length l _p [mm]	Angle of point (°)
2,3x48	2,3	47,0	26,0	5,4	22,9	0,4	2,0	60°
2,5x65	2,5	63,5	50,0	5,7	25,5	0,5	2,1	60°
2,8x48	2,8	47,0	26,0	6,2	30,2	0,6	2,5	60°
2,8x55		53,5	33,0	6,9				
2,8x70		68,5	48,0					
2,8x75		73,5	53,0					

AISI 316/A4

Name	Nominal diameter d [mm]	Total length L [mm]	Threaded length l _g [mm]*	Head diameter d _h [mm]	Head area A _h [mm ²]	Head thickness t [mm]	Point length l _p [mm]	Angle of point (°)
2,8x48	2,8	47,0	26,0	6,2	30,2	0,6	2,5	60°
2,8x55		53,5	33,0					
2,8x70		68,5	48,0					
2,8x75		73,5	53,0					

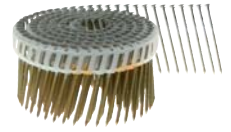


RING SHANK NAIL COLLATED



ELECTRO GALVANIZED / HOT DIP GALVANIZED / AISI 316/A4

Declaration of Performance



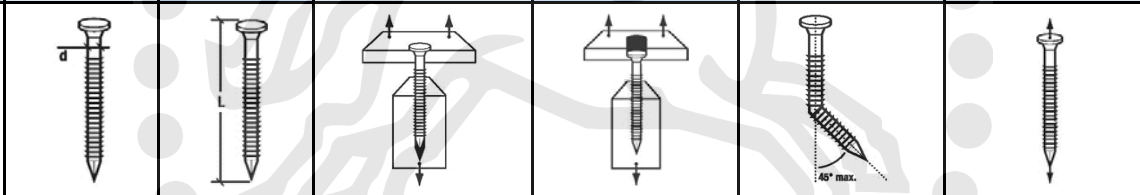
CHARACTERISTIC LOAD CAPACITY

HOT DIP GALVANIZED

Name	Nominal diameter d [mm]	Total length L [mm]	Withdrawal parameter $f_{ax,k}$ [N/mm ²]*	Head pull-through parameter $f_{head,k}$ [N/mm ²]*	Yield moment $M_{y,k}$ [Nmm]	Tensile capacity $f_{tens,k}$ [kN]	ITT report
2,3x48	2,3	47,0	6,0	25,4	1979,0	2,1	TJ-30-9836/3
2,5x65	2,5	63,5	6,5	22,9	2541,0	1,9	TJ-30-9961/1
2,8x48	2,8	47,0	6,0	25,7	3480,0	3,1	TJ-30-9836/6
2,8x55		53,5					
2,8x70		68,5		24,9			
2,8x75		73,5					

AISI 316/A4

Name	Nominal diameter d [mm]	Total length L [mm]	Withdrawal parameter $f_{ax,k}$ [N/mm ²]*	Head pull-through parameter $f_{head,k}$ [N/mm ²]*	Yield moment $M_{y,k}$ [Nmm]	Tensile capacity $f_{tens,k}$ [kN]	ITT report
2,8x48	2,8	47,0	8,4	21,3	3560,0	4,3	TJ-30-9836/5
2,8x55		53,5		22,0			
2,8x70		68,5					
2,8x75		73,5					



* The withdrawal parameter $f_{ax,k}$ and the head pull-through parameter $f_{head,k}$ is tested in wood with a characteristic density of $\rho_k = 350 \text{ kg/m}^3$ (C24). When wood with another density is used values shall be multiplied with $\rho_k / 350$.

PRODUCT IDENTIFICATION

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

ARTIKELNUMMER

70416 70420 70421 70422 70423 70384 70385 70386 70387 70796

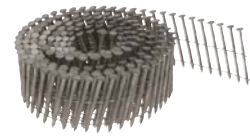
RING SHANK NAIL COLLATED



ELECTRO GALVANIZED / HOT DIP GALVANIZED / AISI 316/A4

Declaration of Performance

COIL- & WIRE COLLATED 15°



DIMENSIONS

ELECTRO GALVANIZED

Name	Nominal diameter d [mm]	Total length L [mm]	Threaded length l _g [mm]*	Head diameter d _h [mm]	Head area A _h [mm ²]	Head thickness t [mm]	Point length l _p [mm]	Angle of point (°)
3,4x45	3,4	46,0	19,0*	7,2	40,7	0,7	4,7	40°

HOT DIP GALVANIZED

Name	Nominal diameter d [mm]	Total length L [mm]	Threaded length l _g [mm]*	Head diameter d _h [mm]	Head area A _h [mm ²]	Head thickness t [mm]	Point length l _p [mm]	Angle of point (°)
2,5x50	2,5	48,5	35,0	5,7	25,5	0,5	3,5	40°
2,5x60		58,5	45,0					
2,5x65		63,5	50,0					
2,8x75	2,8	73,5	53,0	6,9	37,4	0,6	3,8	40°
3,1x90	3,1	88,0	31,0*	6,9	37,4	1,0	4,3	40°

*Total kamgängningslängd exklusive en slät yta för bandning 4 mm.

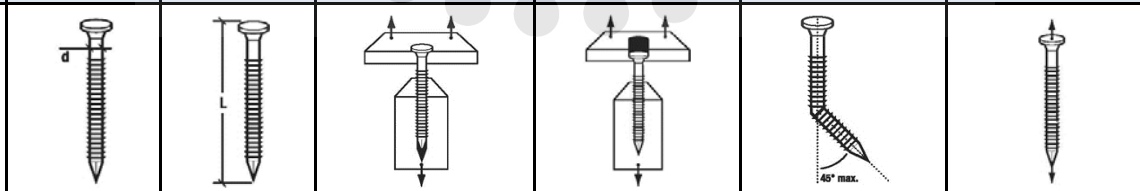
CHARACTERISTIC LOAD CAPACITY

ELECTRO GALVANIZED

Name	Nominal diameter d [mm]	Total length L [mm]	Withdrawal parameter f _{ax,k} [N/mm ²]*	Head pull-through parameter f _{head,k} [N/mm ²]*	Yield moment M _{y,k} [Nmm]	Tensile capacity f _{tens,k} [kN]	ITT report
3,4x45	3,4	46,0	5,3	20,2	3791,0	2,9	TJ-30-9836/4

HOT DIP GALVANIZED

Name	Nominal diameter d [mm]	Total length L [mm]	Withdrawal parameter f _{ax,k} [N/mm ²]*	Head pull-through parameter f _{head,k} [N/mm ²]*	Yield moment M _{y,k} [Nmm]	Tensile capacity f _{tens,k} [kN]	ITT report
2,5x50	2,5	48,5	4,1	19,7	1900,0	3,2	DK 474099
2,5x60		58,5					
2,5x65		63,5					
2,8x75	2,8	73,5	6,0	24,9	3480,0	3,1	TJ-30-9836/6
3,1x90	3,1	88,0	5,7	21,9	4249,0	3,1	TJ-30-9836/11



* The withdrawal parameter f_{ax,k} and the head pull-through parameter f_{head,k} is tested in wood with a characteristic density of ρ_k=350 kg/m³ (C24). When wood with another density is used values shall be multiplied with ρ_k/350.

PRODUCT IDENTIFICATION

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

ARTIKELNUMMER

70395 70401 70410 70413 70414 z722345 z724090

RING SHANK NAIL COLLATED

ELECTRO GALVANIZED / HOT DIP GALVANIZED / AISI 316/A4

Declaration of Performance

LOOSE NAIL

DIMENSIONS

HOT DIP GALVANIZED

Name	Nominal diameter d [mm]	Total length L [mm]	Threaded length l_g [mm]*	Head diameter d_h [mm]	Head area A_h [mm ²]	Head thickness t [mm]	Point length l_p [mm]	Angle of point (°)
2,8x48	2,8	47,0	26,0	6,2	30,2	0,6	2,5	60°
2,8x55		53,5	33,0	6,9				
2,8x70		68,5	48,0					
2,8x75		73,5	53,0					

AISI 316/A4

Name	Nominal diameter d [mm]	Total length L [mm]	Threaded length l_g [mm]*	Head diameter d_h [mm]	Head area A_h [mm ²]	Head thickness t [mm]	Point length l_p [mm]	Angle of point (°)
2,8x48	2,8	47,0	26,0	6,2	30,2	0,6	2,5	60°
2,8x55		53,5	33,0	6,9				
2,8x70		68,5	48,0					
2,8x75		73,5	53,0					

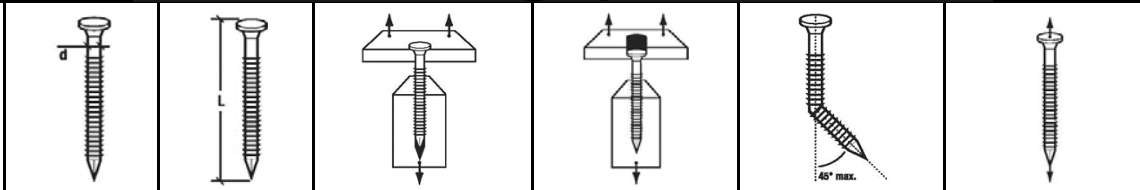
CHARACTERISTIC LOAD CAPACITY

HOT DIP GALVANIZED

Name	Nominal diameter d [mm]	Total length L [mm]	Withdrawal parameter $f_{ax,k}$ [N/mm ²]*	Head pull-through parameter $f_{head,k}$ [N/mm ²]*	Yield moment $M_{y,k}$ [Nmm]	Tensile capacity $f_{tens,k}$ [kN]	ITT report
2,8x48	2,8	47,0	6,0	25,7	3480,0	3,1	TJ-30-9836/6
2,8x55		53,5		24,9			
2,8x70		68,5					
2,8x75		73,5					

AISI 316/A4

Name	Nominal diameter d [mm]	Total length L [mm]	Withdrawal parameter $f_{ax,k}$ [N/mm ²]*	Head pull-through parameter $f_{head,k}$ [N/mm ²]*	Yield moment $M_{y,k}$ [Nmm]	Tensile capacity $f_{tens,k}$ [kN]	ITT report
2,8x48	2,8	47,0	8,4	21,3	3560,0	4,3	TJ-30-9836/5
2,8x55		53,5		22,0			
2,8x70		68,5					
2,8x75		73,5					



* The withdrawal parameter $f_{ax,k}$ and the head pull-through parameter $f_{head,k}$ is tested in wood with a characteristic density of $\rho_k = 350 \text{ kg/m}^3$ (C24). When wood with another density is used values shall be multiplied with $\rho_k / 350$.

PRODUCT IDENTIFICATION

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

ARTIKELNUMMER

70501 70502 70503 70504 70505 70506 70507 70508

RING SHANK NAIL COLLATED

ELECTRO GALVANIZED / HOT DIP GALVANIZED / AISI 316/A4



Declaration of
Performance

The manufacturer declares for, Ring shank nail collated: 15° and 21° and loose ring shank nail.

Electro galvanized, diameter 3,1 and 3,4 mm

Hot dip galvanized, diameter 2,3 up to 3,1 mm

Stainless A4- Service class 3, diameter 2,8 and 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 are performed by:

DTI, Danish Technological Institute. Notified body 1235
ITT-rapport DK 474099

Strojirensky Zkusebni Ustav s.p. Notified body 1015

TJ-30-9836/3

TJ-30-9836/4

TJ-30-9836/5

TJ-30-9836/6

TJ-30-9836/10

TJ-30-9836/11

TJ-30-9961-1

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.

Electrogalvanized - 20 µm, type 1. Corrosion class C2.

Hot dip galvanized - 50 µm, type 1. Corrosion class C4.

Stainless A4 , Corrosion class C5-M.

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 2013-04-03, revised 2013-09-30

Head of Operation, Claes Arnesson



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