GH Connector nails (threaded nails)

ETA-13/0523

CE 0769

Properties

Steel grade	C 9 D
Surface	Fe/Zn , min. 7c

Fasteners to ETA-13/0523

in timber

GH connector na 4.0 x 40 / 50 / 60 / 75 / 100 mm

Joint variations

Material thickness of the connector from 1.5 to 6.0mm

Use

GH connector nails are used for connecting two or three-dimensional timber connectors
used in load-bearing timber constructions without predrilling subject to the edge distances and (centre-to-centre) spacings to Eurocode 5 or the corresponding ETA of the connector.
The reduction in edge distances and spacings in accordance with Eurocode 5 through predrilling is possible.

Approved wood-based panels

- Solid wood, glulam, cross-laminated timber, … according to European Technical Assessment
- Plywood to EN 636
- Solid wood panels to EN 13353 and EN 13986
- Laminated veneer lumber to EN 14374
- Wood-based panel products
- or according to European Technical Assessment

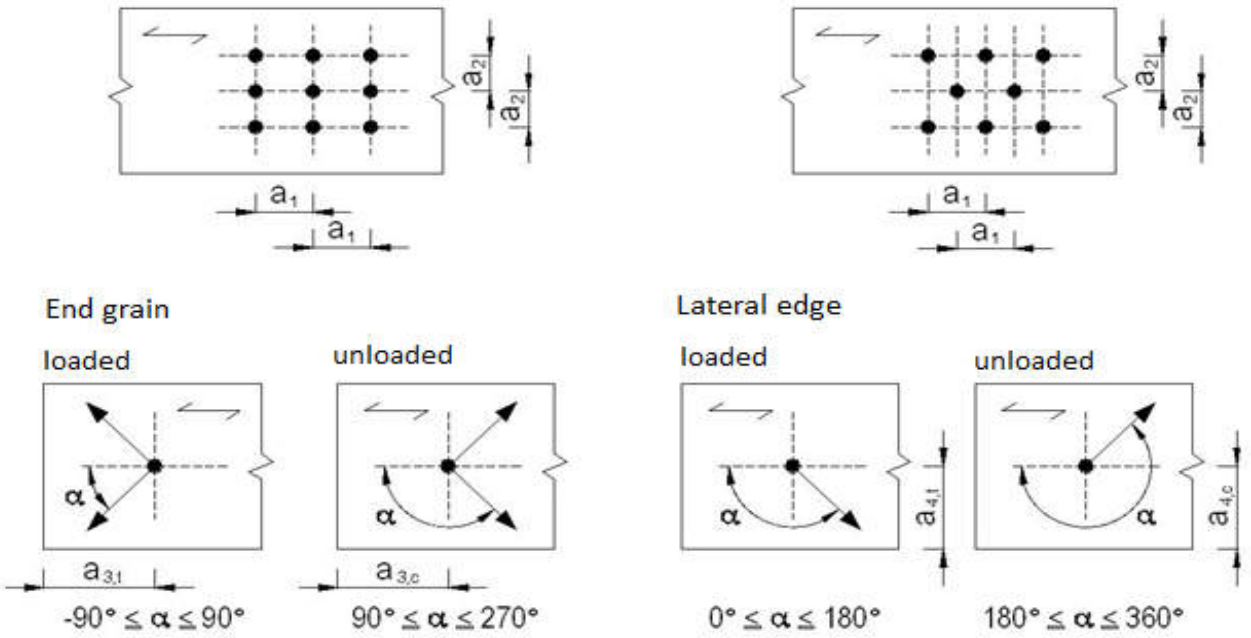
Disclaimer:
Despite careful calculations and checking, no liability is accepted for the technical data.
Subject to change without notice

For technical drawing, see website www.holzverbinder.de

Minimum spacings

Minimum spacings to EN 1995-1-1 for connector nails ∅ 4 mm in nailing plates, $\rho_k \leq 420$ kg/m³

Spacings without predrilling		Force parallel to the grain	Force perpendicular to the grain
a_1	in grain direction	28 mm	14 mm
a_2	perpendicular to the grain direction	14 mm	14 mm
$a_{3,t}$	loaded end	60 mm	40 mm
$a_{3,c}$	unloaded end	40 mm	40 mm
$a_{4,t}$	loaded edge	20 mm	28 mm
$a_{4,c}$	unloaded edge	20 mm	20 mm
For angles other than those given between the force and grain, see EN 1995-1-1 Tab.8.2			



Resistance table[1] to ETA-13/0523

Nail		R_k [kN]	Design value R_d [kN]				
			permanent	long-term	medium-term	short-term	instantaneous
4x35	$F_{v,Rk/d}$	1,68	0,77	0,9	1,03	1,16	1,42
	$F_{ax,Rk/d}$	0,75	0,35	0,4	0,46	0,52	0,63
4x40	$F_{v,Rk/d}$	1,88	0,87	1,01	1,16	1,3	1,59
	$F_{ax,Rk/d}$	0,9	0,42	0,48	0,55	0,62	0,76
4x50	$F_{v,Rk/d}$	2,21	1,02	1,19	1,36	1,53	1,87
	$F_{ax,Rk/d}$	1,2	0,55	0,65	0,74	0,83	1,02
4x60	$F_{v,Rk/d}$	2,36	1,09	1,27	1,45	1,64	2
	$F_{ax,Rk/d}$	1,5	0,69	0,81	0,92	1,04	1,27
4x75	$F_{v,Rk/d}$	2,51	1,16	1,35	1,55	1,74	2,13
	$F_{ax,Rk/d}$	1,8	0,83	0,97	1,11	1,25	1,52
4x100	$F_{v,Rk/d}$	2,81	1,3	1,52	1,73	1,95	2,38
	$F_{ax,Rk/d}$	2,4	1,11	1,29	1,48	1,66	2,03
6x60	$F_{v,Rk/d}$	3,96	1,83	2,13	2,44	2,74	3,35
	$F_{ax,Rk/d}$	2,25	1,04	1,21	1,38	1,56	1,90
6x80	$F_{v,Rk/d}$	4,75	2,19	2,56	2,93	3,29	4,02
	$F_{ax,Rk/d}$	3,15	1,45	1,70	1,94	2,18	2,67
6x100	$F_{v,Rk/d}$	4,98	2,30	2,68	3,06	3,45	4,21
	$F_{ax,Rk/d}$	3,60	1,66	1,94	2,22	2,49	3,05

[1] Softwood / glulam in strength classes C24 / GL24c with density 350 kg/m³
Other plate thicknesses, timber types and densities possible in accordance with ETA -13/0523
Connectors/sheet/plate 2 mm thick

F_v = Load-carrying capacity per shear plane and fastener

F_{ax} = Axial withdrawal capacity of the fastener