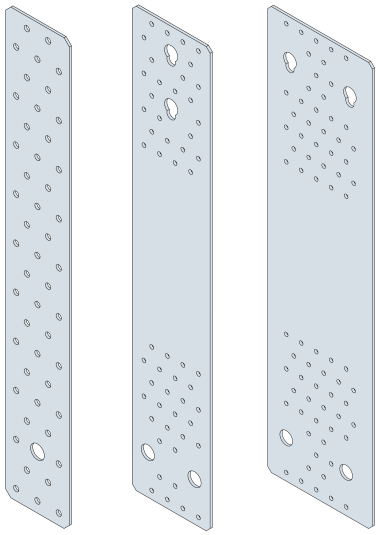
Technical Sheet

NPB
Nail plate for CLT

NPB nail plates have been especially designed for CLT building. They allow the installation of CLT panels to CLT support or concrete support.



Features

Material

- Pre-galvanised steel S250GD + Z275 according to standard NF EN 10346
- Thickness 2 and 3 mm

Advantages

- Ideal for CLT building,
- Great versatility: can be fixed on a wooden support and a concrete support,
- High capacity for vertical force directions.

Applications

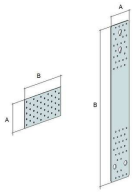
Application

- Cross laminated panels (CLT),
- Solid panels...

Technical Sheet

NPB
Nail plate for CLT

Technical Data



Dimensions

Reference	konektor rozměry							
	rozměry výrobku[mm]			nosník	otvory[mm]		ostatní	
	A[mm]	B[mm]	tloušťka[mm]	kulatý	kulatý		množství v krabici	hmotnost[kg]
				Ø[mm]	n	Ø17		
NPB60400	60	400	2	49	1	-	10	0.36
NPB100540	100	540	3	26+28	2 (Ø14)	2	10	1.2
NPB140540	140	540	3	36+36	-	2+2	10	1.7

Product characteristic capacities - CLT to CLT

Reference	hřebík plates únosnost					
	výrobek capacities - dřevo to Rigid podpora - Nailing pattern 1					
	počet of Fasteners		výrobek characteristic capacities - dřevo C24[kN]			
	Top part	Bottom part	$R_{1,k}$		$R_{2,k}=R_{3,k}$	
			CNA4.0x50	CSA5.0x50	CNA4.0x50	CSA5.0x50
NPB60400	n	n	min (26.7/kmod ; n x 2.22)	min (26.7/kmod ; n x 2.63)	-	-
NPB100540	n	n	min (71.3/kmod ; n x 2.22)	min (71.3/kmod ; n x 2.63)	-	-
NPB140540	n	n	min (102.5/kmod ; n x 2.22)	min (102.5/kmod ; n x 2.63)	-	-

n = number of fasteners (CNA or CSA) on the top or bottom part of the plate. This number of fasteners has to be the same on both timber elements.
Distances to the edges of the timber must be checked.
For combinied forces it´s to check: \sum\frac{F_{i,d}} {R_{i,d}}\le1

Product characteristic capacities - CLT to concrete

Reference	hřebík plates únosnost		
	výrobek capacities - dřevo to Rigid podpora - Nailing pattern 2		
	počet of Fasteners	výrobek characteristic capacities - dřevo C24[kN]	
	Top part	$R_{1,k}$	
		CNA4.0x50	CSA5.0x50
NPB60400	n	min (20.6/kmod ; n x 2.22)	min (20.6/kmod ; n x 2.63)
NPB100540	n	min (58.8/kmod ; n x 2.22)	min (58.8/kmod ; n x 2.63)
NPB140540	n	min (82.4/kmod ; n x 2.22)	min (82.4/kmod ; n x 2.63)

n = number of fasteners (CNA or CSA) on the top part of the plate. The distances to the edges of the timber as well as the distances to the edges of the concrete must be checked.
Anchors resistance must also be checked

Installation

Fasteners

On timber :

- CNA Ø4.0x50 mm nails
- CSA Ø5.0x40 or CSA Ø5.0x50 screws

On concrete :

- *Mechanical anchor :* WA M12-104/5 anchor
- *Chemical anchor :* AT-HP resin + LMAS M12-150/35 threaded rod

Installation

<u>On timber</u> :
1. Approach the two elements to be fixed,
2. Point or screw the plate on the 1st element to be fixed,
3. Point or screw the plate on the 2nd element.
<u>On concrete</u> :
1. Approach the element to be fixed from the concrete support,
2. Point the plate on the element to be fixed,
3. Secure the plate to the concrete with the recommended anchors.

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