

## NPB255 Nail plate for CLT

*Nail plate NPB255 has been developed to fix to provide support for and CLT panels to CLT Floors, timber supports or concrete supports. Versatile and simple to install, centre markings are stamped onto the plate to assist accurate positioning over the CLT panels.*

### Features

#### Material

- Galvanized steel S250GD + Z275 according to EN 10346
- Thickness 3 mm

#### Advantages

- Ideal for use in Timber and CLT buildings
- Great versatility: can be utilised for Timber to Timber, Timber to concrete, CLT to CLT or CLT to concrete connections,
- High performance for horizontal ( $F_2 / F_3$ ) and vertical ( $F_1$ ) loads directions.

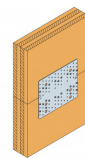
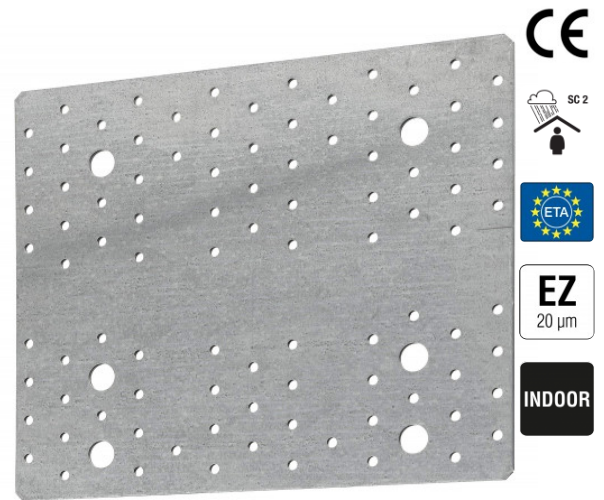
### Applications

#### Applications

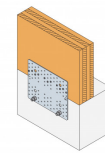
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#### Domaine d'utilisation

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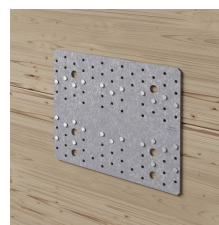
Wood to wood



Wood to concrete



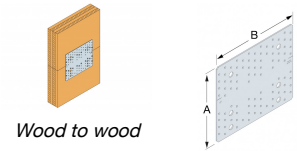
Installation - Timber to Concrete



NPB255  
Nail plate for CLT

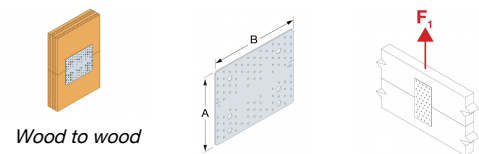
## Technical Data

### Product Dimensions



| References | Dimensions [mm] |     |   |
|------------|-----------------|-----|---|
|            | A               | B   | t |
| NPB255     | 214             | 255 | 3 |

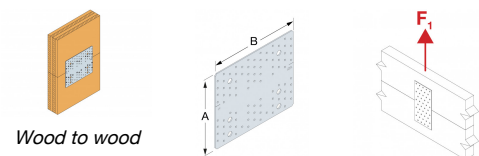
### Product Characteristic Capacities - Timber to Timber - Nailing Pattern 1



| References | Product capacities - Timber to timber - Nailing pattern 1 |             |   |           |                  |           |
|------------|---|-------------|---|-----------|------------------|-----------|
|            | Fasteners   |             | Product characteristic capacities - Timber C24 [kN] |           |                  |           |
|            | Top part  | Bottom part | R <sub>1,k</sub>                                    |           | R <sub>2,k</sub> |           |
|            |   |             | CNA4.0x50   | CSA5.0x50 | CNA4.0x50        | CSA5.0x50 |
| NPB255     | 11  | 15          | 23.9  | 27.6      | 20.8             | 24        |

- The timber member must be prevented from rotation (by other means)

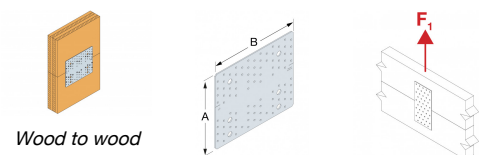
### Product Characteristic Capacities - Timber to Timber - Nailing Pattern 2



| References | Product capacities - Timber to timber - Nailing pattern 2 |             |   |           |                  |           |
|------------|---|-------------|---|-----------|------------------|-----------|
|            | Fasteners   |             | Product characteristic capacities - Timber C24 [kN] |           |                  |           |
|            | Top part  | Bottom part | R <sub>1,k</sub>                                    |           | R <sub>2,k</sub> |           |
|            |   |             | CNA4.0x50   | CSA5.0x50 | CNA4.0x50        | CSA5.0x50 |
| NPB255     | 13  | 15          | 28.3  | 32.6      | 19.4             | 22.3      |

- The timber member must be prevented from rotation (by other means)

### Product Characteristic Capacities - Timber to Timber - Nailing Pattern 3

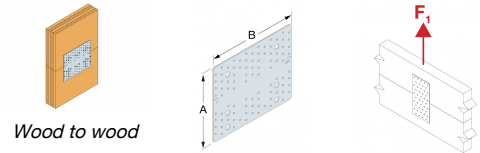


| References | Product capacities - Timber to timber - Nailing pattern 3 |             |   |  |  |  |
|------------|---|-------------|---|--|--|--|
|            | Fasteners   |             | Product characteristic capacities - Timber C24 [kN] |  |  |  |
|            | Top part  | Bottom part | R <sub>2,k</sub>                                    |  |  |  |
|            |   |             | CSA5.0x50   |  |  |  |
| NPB255     | 11  | 15          | 20.7  |  |  |  |

- The timber member must be prevented from rotation (by other means)

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Nail plate for CLT

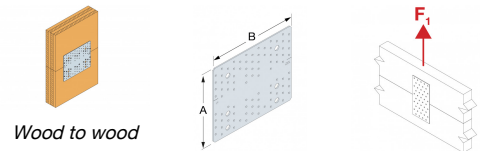
Product Characteristic Capacities - Timber to Timber -  
Nailing Pattern 4



| References | Product capacities - Timber to timber - Nailing pattern 4 |             |   |
|------------|---|-------------|---|
|            | Fasteners   |             | Product characteristic capacities - Timber C24 [kN] |
|            | Top part  | Bottom part | $R_{2,k}$<br>CSA5.0x50                              |
| NPB255     | 17  | 24          | 27.8  |

- The timber member must be prevented from rotation (by other means)

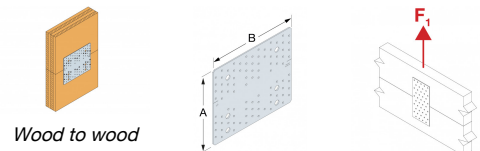
Product Characteristic Capacities - Timber to Timber -  
Nailing Pattern 5



| References | Product capacities - Timber to timber - Nailing pattern 5 |             |   |
|------------|---|-------------|---|
|            | Fasteners   |             | Product characteristic capacities - Timber C24 [kN] |
|            | Top part  | Bottom part | $R_{2,k}$<br>CSA5.0x50                              |
| NPB255     | 16  | 23          | 30.6  |

- The timber member must be prevented from rotation (by other means)

Product Characteristic Capacities - Timber to Timber -  
Nailing Pattern 6

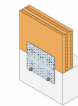


| References | Product capacities - Timber to timber - Nailing pattern 6 |             |   |
|------------|---|-------------|---|
|            | Fasteners   |             | Product characteristic capacities - Timber C24 [kN] |
|            | Top part  | Bottom part | $R_{2,k}$<br>CSA5.0x50                              |
| NPB255     | 30  | 34          | 44  |

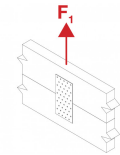
- The timber member must be prevented from rotation (by other means)

NPB255  
Nail plate for CLT

Product Characteristic Capacities - Timber to Rigid Support -  
Nailing Pattern 1



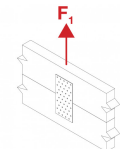
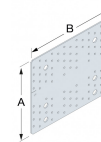
Wood to concrete



| References | Product capacities - Timber to Rigid support - Nailing pattern 1 |             |   |           |                  |           |
|------------|--|-------------|---|-----------|------------------|-----------|
|            | Fasteners  |             | Product characteristic capacities - Timber C24 [kN] |           |                  |           |
|            | Top part   | Bottom part | R <sub>1,k</sub>                                    |           | R <sub>2,k</sub> |           |
|            |  |             | CNA4.0x50   | CSA5.0x50 | CNA4.0x50        | CSA5.0x50 |
| NPB255     | 11   | 2           | 23.9  | 27.6      | 22.8             | 26.3      |

- The timber member must be prevented from rotation (by other means)
- The group composed of two anchors shall be checked with shear loads  $F_1$  and  $F_2$ , and a moment applied at the middle between the two anchor is equal to  $F_2 \cdot 120\text{mm}$  (spacing of anchors: 160 mm)

Product Characteristic Capacities - Timber to Rigid Support -  
Nailing Pattern 2



| References | Product capacities - Timber to Rigid support - Nailing pattern 2 |             |   |           |                  |           |
|------------|--|-------------|---|-----------|------------------|-----------|
|            | Fasteners  |             | Product characteristic capacities - Timber C24 [kN] |           |                  |           |
|            | Top part   | Bottom part | R <sub>1,k</sub>                                    |           | R <sub>2,k</sub> |           |
|            |  |             | CNA4.0x50   | CSA5.0x50 | CNA4.0x50        | CSA5.0x50 |
| NPB255     | -  | -           | -   | -         | -                | -         |

- The timber member must be prevented from rotation (by other means)
- The group composed of two anchors shall be checked with shear loads  $F_1$  and  $F_2$ , and a moment applied at the middle between the two anchor is equal to  $F_2 \cdot 120\text{mm}$  (spacing of anchors: 160 mm)

NPB255

**Nail plate for CLT**

## Installation

### Fasteners

#### **CLT Connection:**

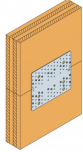
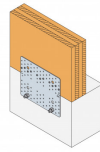
- CNA annular ring shank nails dia. 4.0 x 50 mm,
- CSA screws dia. 5.0 x 40 mm.

#### **Concrete Connection :**

- Mechanical anchor: M12
- Chemical anchor: AT-HP resin + LMAS M12-150/35 threaded rod.

### Applications

#### **Nailing pattern**

*Wood to wood**Wood to concrete*