

## ABCLT Low Profile Angle bracket for CLT

The ABCLT is an low profile angle bracket dedicated to CLT application. It takes high shear loads in a small height allowing it to be hidden in the flooring layers. It can be used for CLT to CLT connection but also CLT to Concrete Application.

### Features

#### Material

- Pre-galvanised mild steel.
- S250GD + Z275 according to EN 10346

#### Benefits

- Perfect for CLT building
- Versatile: can be used on timber and concrete support
- Superior performance for forces in horizontal (F2/F3) and vertical directions (F1)
- Low Profile

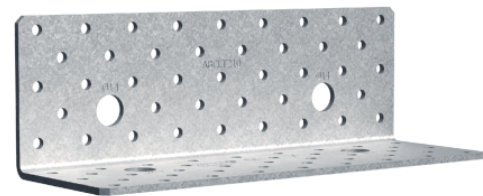
### Applications

#### Suitable On

- Supporting member: CLT, concrete, steel, etc.
- Supported member: CLT.

#### Where to Use

- CLT panels.

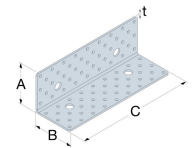


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Low Profile Angle bracket for CLT

## Technical Data

Other Technical data

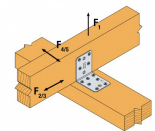
Other load direction and stiffness are available. Contact your local technical department for more information.



Dimensions

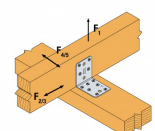
Art. nr.	Product dimensions [mm]				Holes flange A		Holes flange B		Hmotnost [kg]
	A	B	C	t	Ø5 [mm]	Ø14 [mm]	Ø5 [mm]	Ø14 [mm]	
ABCLT210	69	69	210	3	41	2	41	2	0.587

Product characteristic capacities - CLT to CLT - 1 angle bracket - Nailing pattern 1



Art. nr.	Product capacities - CLT to CLT - Nailing Pattern 1												
	Fasteners		Characteristic capacities - Timber CLT - Nailing Pattern 1										
	Flange A	Flange B	$R_{1,k}$							$F_{t,R}$			
Qty	Qty	CNA4.0x35	CNA4.0x40	CNA4.0x50	CNA4.0x60	CSA5.0x35	CSA5.0x40	CSA5.0x50	CNA4.0x35	CNA4.0x40	CNA4.0x50	C	
ABCLT210	26	24	-	-	-	-	17.7	20.7	26.9	30.4	33.9	40.6	C

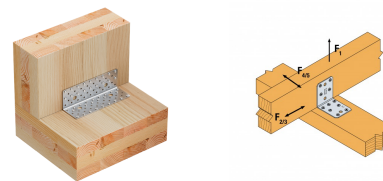
Product characteristic capacities - CLT to CLT - 1 angle bracket - Nailing pattern 1 with SIT



Art. nr.	Product capacities - CLT to CLT - Nailing Pattern 1 with SIT												
	Fasteners		Characteristic capacities - Timber CLT - 1 angle brackets per connection [kN]										
	Flange A	Flange B	$R_{1,k}$							$R$			
Qty	Qty	CNA4.0x35	CNA4.0x40	CNA4.0x50	CNA4.0x60	CSA5.0x35	CSA5.0x40	CSA5.0x50	CNA4.0x35	CNA4.0x40	CNA4.0x50	C	
ABCLT210	26	24	-	-	-	-	15	17.6	22.7	23.5	26.2	31.4	C

## ABCLT Low Profile Angle bracket for CLT

Product characteristic capacities - CLT to CLT- 1 angle bracket - Nailing pattern 2



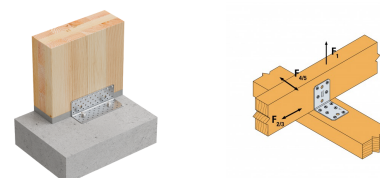
Art. nr.	Product capacities - CLT to CLT - Nailing Pattern 2												
	Fasteners		Characteristic capacities - Timber CLT - 1 angle brackets per connection [kN]										
	Flange A	Flange B	$R_{1,k}$									R	
	Qty	Qty	CNA4.0x35	CNA4.0x40	CNA4.0x50	CNA4.0x60	CSA5.0x35	CSA5.0x40	CSA5.0x50	CNA4.0x35	CNA4.0x40	CNA4.0x50	C
ABCLT210	18 (9)	18	4.4	5.3	7.1	8.9	15.2	17.8	23	21.8	24.2	29.1	

Product characteristic capacities - CLT to CLT - 1 angle bracket - Nailing pattern 3 with SIT



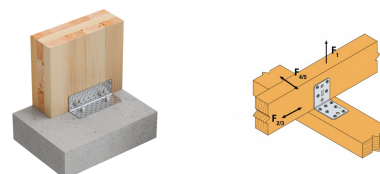
Art. nr.	Product capacities - CLT to CLT - Nailing Pattern 3 with SIT												
	Fasteners		Characteristic capacities - Timber CLT - 1 angle brackets per connection [kN]										
	Flange A	Flange B	$R_{1,k}$									R	
	Qty	Qty	CNA4.0x35	CNA4.0x40	CNA4.0x50	CNA4.0x60	CSA5.0x35	CSA5.0x40	CSA5.0x50	CNA4.0x35	CNA4.0x40	CNA4.0x50	C
ABCLT210	17	24	4.3	5.3	7	8.7	15	17.6	22.7	19.5	21.7	26	

Simplified characteristic capacities - CLT to rigid support - 1 angle bracket - Nailing pattern 4



Art. nr.	Product capacities - CLT to Concrete - Nailing Pattern 4													
	Fasteners				Characteristic capacities - Timber CLT - 1 angle brackets per connect									
	Flange A		Flange B		$R_{1,k}$								R	
	Qty	Type	Qty	Type	CNA4.0x35	CNA4.0x40	CNA4.0x50	CNA4.0x60	CSA5.0x35	CSA5.0x40	CSA5.0x50	CNA4.0x35	CNA4.0x40	CNA4.0x50
ABCLT210	9	CNA/CSA	2	M12	-	-	-	-	16.3	18.5	22	9.8	10.9	1

Simplified characteristic capacities - CLT to rigid support - 1 angle bracket - Nailing pattern 5



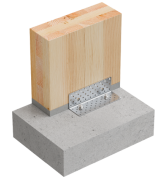
Art. nr.	Product capacities - CLT to Concrete - Nailing Pattern 5													
	Fasteners				Characteristic capacities - Timber CLT - 1 angle brackets per co									
	Flange A		Flange B		$R_{1,k}$								R	
	Qty	Type	Qty	Type	CNA4.0x35	CNA4.0x40	CNA4.0x50	CNA4.0x60	CSA5.0x35	CSA5.0x40	CSA5.0x50	CNA4.0x35	CNA4.0x40	CNA4.0x50
ABCLT210	26 (17)	CNA/CSA	2	M12	20.6	23.8	29.8	33.5	min(47.9;32.0/kmod)	32.0/kmod	32.0/kmod	30.4	33	

# Technický list



ABCLT  
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Product characteristic capacities - CLT to rigid support - 1 angle bracket-  
Nailing pattern 7



Art. nr.	Characteristic capacities - Timber CLT - concrete - Nailing Pattern 7								
	Fastener			Product capacities CLT to rigid support [kN]					
	flange A		flange B	R <sub>1,k</sub>			R <sub>2/3,k</sub>		
	Qty	Qty	Type	CNA4.0x50	CNA4.0x60	CSA5.0x50	CNA4.0x50	CNA4.0x60	CSA5.0x50
ABCLT210	9	2	M12	-	-	22	13.1	13.9	15.5

	R <sub>1</sub>	R <sub>2/3</sub>
k <sub>lat</sub>	-	0,51
k <sub>ax</sub>	0,67	0,06

$R_{\text{bolt.lat.d}} \geq F_{i,d} \times k_{\text{lat}}$   
 $R_{\text{bolt.ax.d}} \geq F_{i,d} \times k_{\text{ax}}$

Product characteristic capacities - CLT to rigid support - 1 angle bracket-  
Nailing pattern 10



Art. nr.	Product capacities - Timber CLT - Concrete Nailing Pattern 10												
	Fasteners				Characteristic capacities - CLT to rigid support [kN]								
	Flange A		Flange B		R <sub>1,k</sub>			R <sub>2,k</sub> = R <sub>3,k</sub>			R <sub>4,k</sub>		
	Qty	Type	Qty	Type	CNA4.0x50	CNA4.0x60	CSA5.0x50	CNA4.0x50	CNA4.0x60	CSA5.0x50	CNA4.0x50	CNA4.0x60	CSA5.0x50
ABCLT210	17	-	2	M12	min(29,8 ; 32/kmod)	min(33,5 ; 32/kmod)	min(43;32.0/kmod)	26	27.7	30.8	31.5	31.5	31.5

	R <sub>1</sub>	R <sub>2/3</sub>	R <sub>4</sub>	R <sub>5</sub>
k <sub>lat</sub>	-	0,51	0,5	0,5
k <sub>ax</sub>	0,67	0,06	-	2

$R_{\text{bolt.lat.d}} \geq F_{i,d} \times k_{\text{lat}}$   
 $R_{\text{bolt.ax.d}} \geq F_{i,d} \times k_{\text{ax}}$

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## Installation

### Fasteners

#### **On CLT:**

- CNA nails and CSA screws

#### **On concrete:**

- Mechanical anchor: FM 753 evo M12
- Chemical anchor: AT-HP resin + LMAS M12-150/35 threaded rod

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