

**Warmth in Winter  
Cool in Summer**

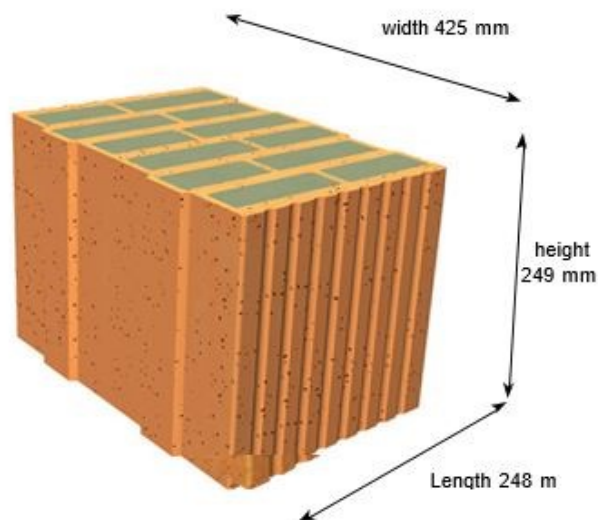


**CLIMAmur 42**





Precision-ground blocks for  
Roller Applicator System



## CLIMAmur® 42

### Monomur clay blocks

48 blocks/pallet

17.1 kg/block

16 blocks/m<sup>2</sup>

## Technical Information

### The CLIMAmur 42 block

Standardised compressive strength class:	RC 60
Normalised compressive strength:	$f_b = 7.5 \text{ N/mm}^2$ (for calculations according to Eurocodes)
Category I-LD-RC 60 - Conforms to standard NF EN 771-1/DIN V 105	

### The wall made with CLIMAmur 42 blocks

Total finished thickness of horizontal joints:	1 mm (consumption $\pm 5.0 \text{ kg/m}^2$ , approx. 0.6 bag per pallet)
Vertical joints:	dry interlocking or thin joint ( $\pm 6.6 \text{ kg/m}^2$ , approx. 0.8 bag per pallet)
Type of masonry surface (substrate):	Rt 2 (Masonry elements with medium adhesion properties)
External wall finish:	lime-cement or OC 2 ready-mix mortar
Internal wall finish:	lime-cement mortar, plaster or plasterboard
Thickness of finished wall:	45 cm
Weight of bare wall:	approx. 315 kg/m <sup>2</sup>



French Building Code pending  
OC2 = category of single-layer mortar in France

Scan code to be directed to  
"Technical Information" Stellaria

Certification documents available on request





## Thermal Insulation

- ♦ Thermal resistance of wall (without surface resistances)

	Wall	Performance
	Coating mortar + Brick wall CLIMAmur® 42 + Gypsum plaster	$R = 5.15 \text{ m}^2 \cdot \text{K/W}$ (without surface resistances) $U_p = 0.18 \text{ W/(m}^2 \cdot \text{K)}^*$

\*With vertical glued joints,  $R = 5.21 \text{ m}^2 \cdot \text{K/W}$  -  $U_p = 0.19 \text{ W/(m}^2 \cdot \text{K)}$

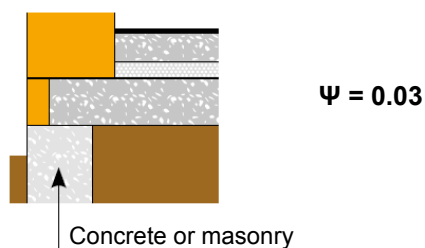
- Distributed insulation (ITR) and insulation type a (reduced thermal bridges)
- Bare wall voluminal heat capacity:  $C_v = 650 \text{ kJ / (m}^3 \cdot \text{K)}$

### Thermal bridges $\Psi$ according to CSTB calculations in $\text{W / (m} \cdot \text{K)}$

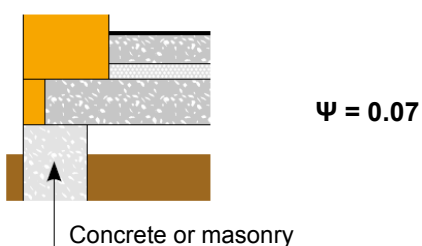
#### Low-floor wall

(Floor thickness 16 or 20 cm)

On-ground floor with isolated floating screed




Flooring on sanitary space with insulated floating screed




#### Intermediate floor-wall

Concrete flooring

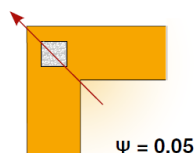
Planelle TH7 + Isolant Th38 8 cm (Rp = 2,43)		<table><tr><th>Floor</th><th><math>\Psi</math></th></tr><tr><td>16cm</td><td>0.10</td></tr><tr><td>20cm</td><td>0.12</td></tr></table>	Floor	$\Psi$	16cm	0.10	20cm	0.12
Floor	$\Psi$							
16cm	0.10							
20cm	0.12							

Flooring Formwork

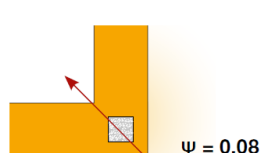
Planelle TH7 + Isolant Th38 8 cm (Rp = 2,43)		<table><tr><th>Floor</th><th><math>\Psi</math></th></tr><tr><td>12 + 4 cm</td><td>0.10</td></tr><tr><td>16 + 4 cm</td><td>0.12</td></tr></table>	Floor	$\Psi$	12 + 4 cm	0.10	16 + 4 cm	0.12
Floor	$\Psi$							
12 + 4 cm	0.10							
16 + 4 cm	0.12							

#### Wall angle

External corner

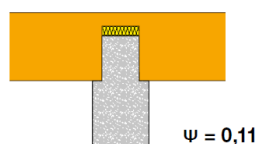


Internal corner

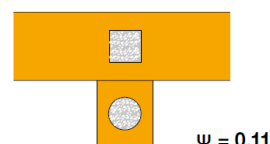


#### Cross Walls

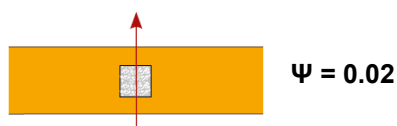
Concrete Wall



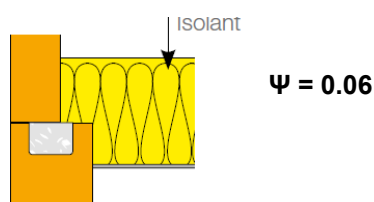
Block Wall



#### Intermediate Post



#### Wall Fill









## Thermal Insulation



Thermal bridges  $\Psi$  according to CSTB calculations in  $W / (m.K)$  more

### Wall-Joinery



Installation in tunnel

Carpentry Position	$\Psi$ in table
 Exterior	0.06
 In table (20 cm)	0.04
 Interior	0.04
	$\Psi$ in lintel (All positions) 0.06

Reinforcement with 20 cm board

	$\Psi$ in table 0.03		$\Psi$ in lintel 0.05
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Reinforced lamination

	$\Psi$ in table 0.05		$\Psi$ in lintel 0.04
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### Carpentry Support

Insulated support interior

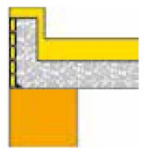


Concrete Support 20cm

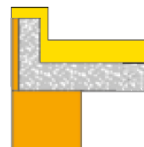


### Parapet wall

With insulated panelles  $R = 0.50$

	Wall height (in m)	Concrete thickness (in m)	$\Psi$
	0.40	0.12	0.43
		0.20	0.48
	1.00	0.12	0.45
		0.20	0.51

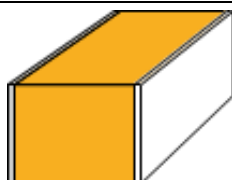
With panelles TH7  $R = 0.33$

	Wall height (in m)	Concrete thickness (in m)	$\Psi$
	0.40	0.12	0.48
		0.20	0.53
	1.00	0.12	0.49
		0.20	0.55



## Acoustic Comfort

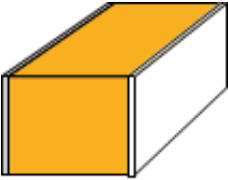
Example of acoustic performance

	Wall	Acoustic attenuation indices		
		$R_w + C$ (dB)	$R_w + C_{tr}$ (dB)	N° PV
	Coating mortar + Brick wall CLIMAmur® 42 + Gypsum plaster	44	43	122-007-04P-175-1



## Fire Safety

- Reaction to fire: Rating A1 (non-combustible)
- Fire resistance: The CLIMAmur® 42 brick wall meets the fire safety criteria for 2nd and 3rd families.

	Wall	Test Load (kN/m)	Class	N° PV
	Coating mortar + Brick wall CLIMAmur® 42 + Gypsum plaster	200	REI 60	13-U-003 + Extension 13/1



## Environmental Protection

Non-renewable energy consumed	7.31 MJ
Water consumption	2.09 litres
Climate Change	0.61 kg equivalent C02

Environmental Product Declaration (DEP) data according to ISO 14025. The values correspond to the functional unit.



## Calculation of Structures

The maximum permissible loads due to vertical loads in the CLIMAmur® 42 masonry supporting walls according to DTA 16 / 13-675 are:

Centred Loading	306 kN/ml
Off Centred Loading	182 kN/ml

For the calculation of structures according to the Eurocodes, the values to be taken are:

Standard compressive strength	$f_b = 7.5 \text{ N/mm}^2$
Characteristic resistance to compression in masonry	$f_k = 3.91 \text{ N/mm}^2$
Classification of masonry elements according to Eurocode 6	Category 1, Group 3, Performance Mortar



## Construction in Seismic Zone

- The design of the CLIMAmur® 42 accessories facilitates the use in seismic zones.
- The vertical sockets are glued to the thin joint mortar, unless special provisions with dry vertical joints as described in the DTA.

The details of configuration and implementation are specified in the minutes. Load descent is calculated for each construction project. Prior to construction, each detail must be verified and validated by all the parties involved (Owner, Contractor, BE, companies ...), to which Wienerberger, the manufacturer, can under no circumstances replace. PV tests available upon request.



# Roller Applicator System

(thin-bed joint mortar system)



Floor-end filler blocks TH7

Thermal Resistance R= 0.33m2 K/W

TH7-16	500 x 65 x 159 mm	192/pallet	4.5kg	2.0/ml
TH7-20	500 x 65 x 199 mm	144/pallet	5.7kg	2.0/ml



Insulated floor-end filler blocks

See Accessories Brochure



Roller shutter boxes

See Accessories Brochure



Bond beam-lintel column block, for vertical reinforcement

CLIMAmur 42	300 x 425 x 249 mm	Opening 175 x 175 mm	36/pallet	20.7 kg	4.0/ml
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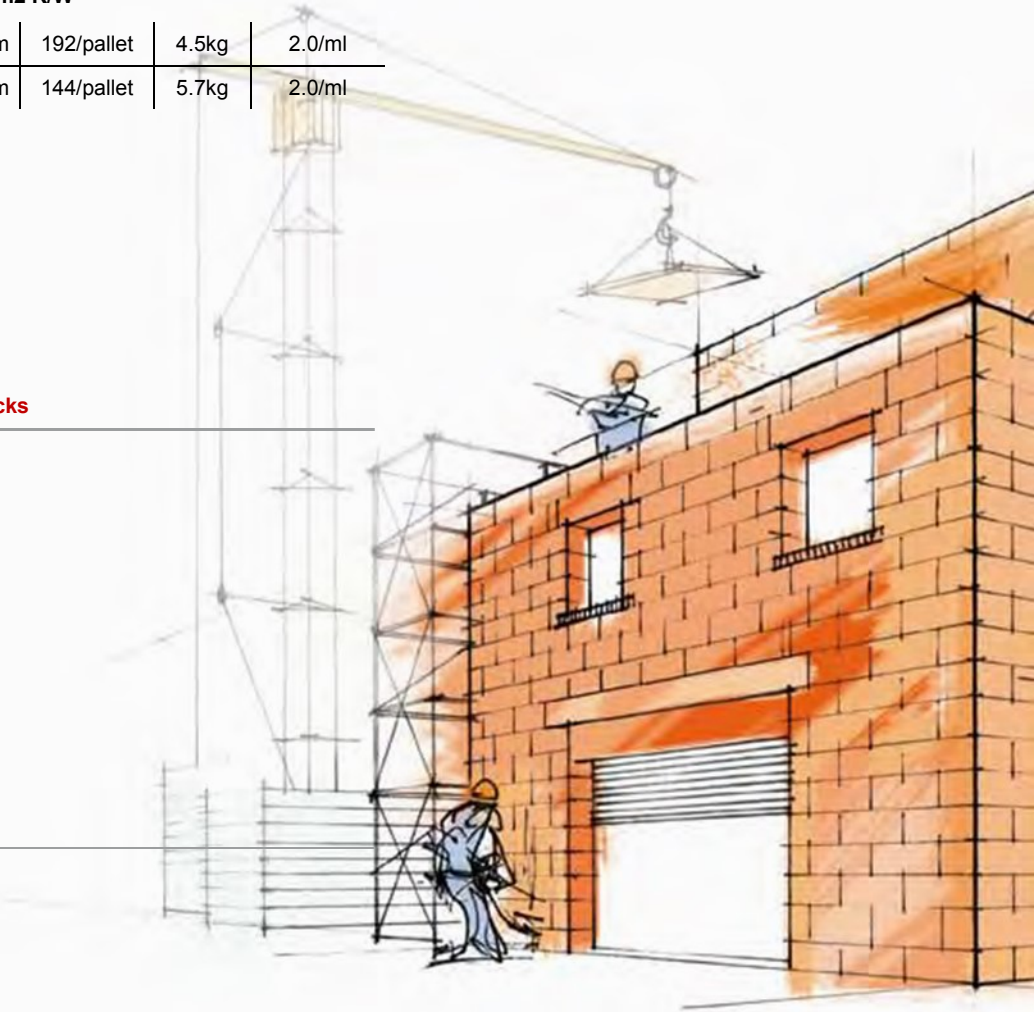
Tools and mortar for Roller Applicator System



Mortar Thin Joints		
Special CLIMAmur	48 bags/pallet	25kg/bag



Insulating Mortar		
For refill - Vertical J	40 bags/pallet	18kg/bag





**Bond beam-lintel column block, for horizontal reinforcement**

<b>CLIMAmur 42</b>	249 x 425 x 300 mm	Opening 175 x 175 mm	36/pallet	20.7kg	4.0/ml
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**Levelling block (1 face rectified)**

<b>CLIMAmur 42</b>	248 x 425 x 121 mm	80/pallet	8.3kg	4.0/ml
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**Long lintels/Pre-lintels**

See Accessories Brochure



**Half blocks**

<b>CLIMAmur 42</b>	123 x 425 x 249 mm	80/pallet	9.1kg	6.0/ml
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Delivered by 2, to be sawn on site



**Window sills made of pre-assembled Terca bricks**



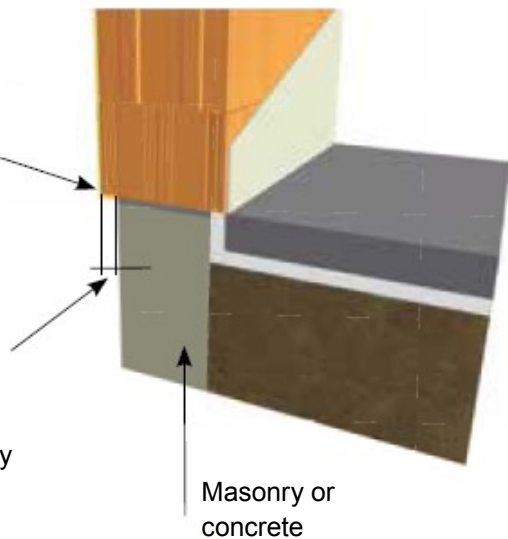
**CLIMAmur® gripper clamp**

### Underfloor with median (example with overhang)



If overhang > 2 cm,  
provide backfill with  
weft

Maximal clearance  
5 cm gross masonry  
(DTU 20.1)



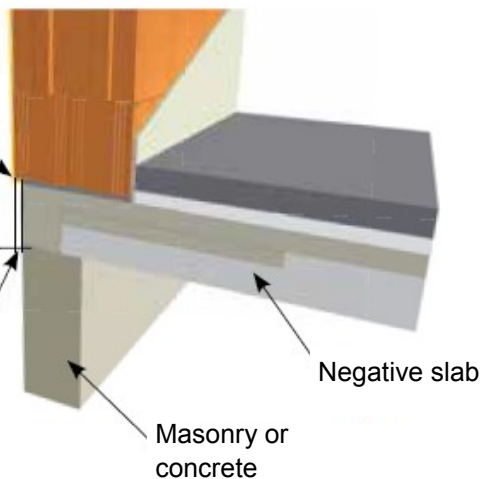
Calculation of the load descent to be verified.  
Arrangements for capillary lifts to be provided according  
to NF DTU 20.1

### Wall on basement (example with overhang)



If overhang > 2 cm,  
provide backfill with  
weft

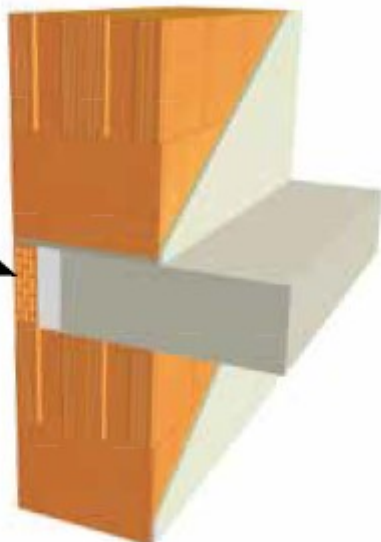
Maximal clearance  
5 cm gross masonry  
(DTU 20.1)



Calculation of the load descent to be verified.  
Arrangements for capillary lifts to be provided according  
to NF DTU 20.1

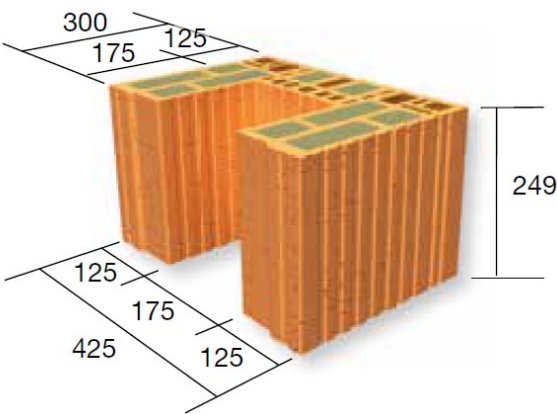
### Intermediate floor thermal bridge break

Planelle TH7  
+ Insulation 8 cm maxi  
or Insulated Planelle  
R - 1.5



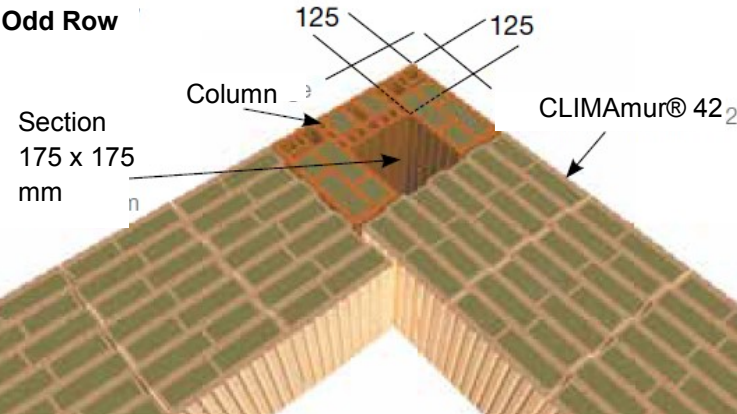


Vertical Reinforced Columns

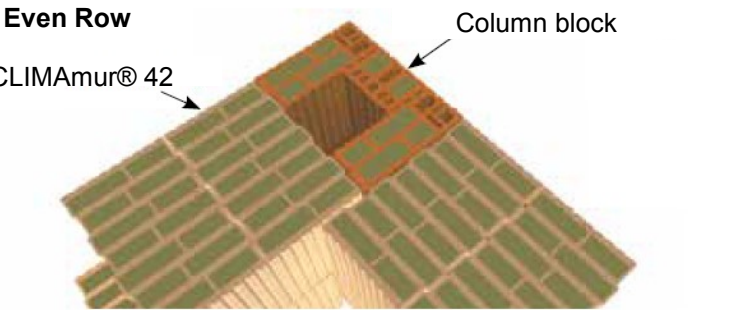


Vertical Wall at 90°

Odd Row

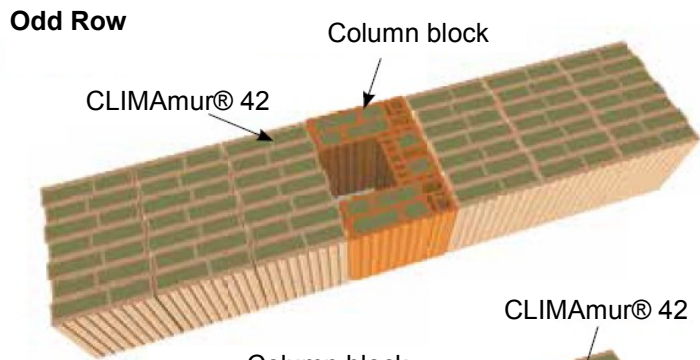


Even Row

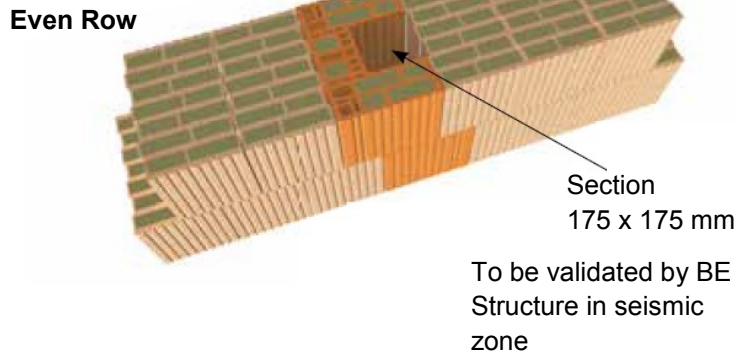


Vertical columns

Odd Row

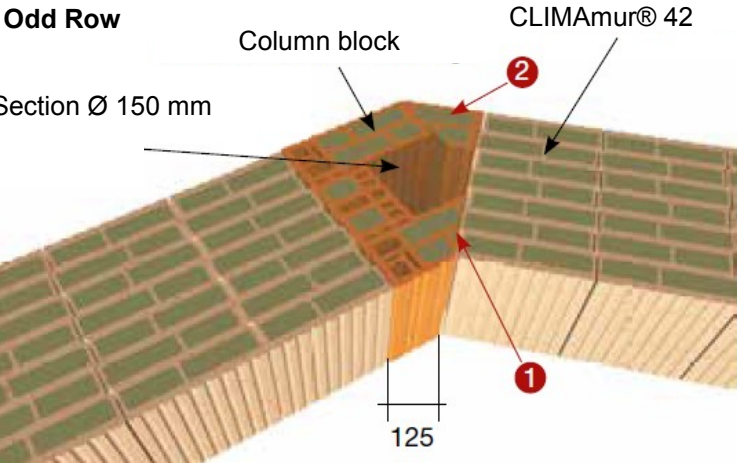


Even Row

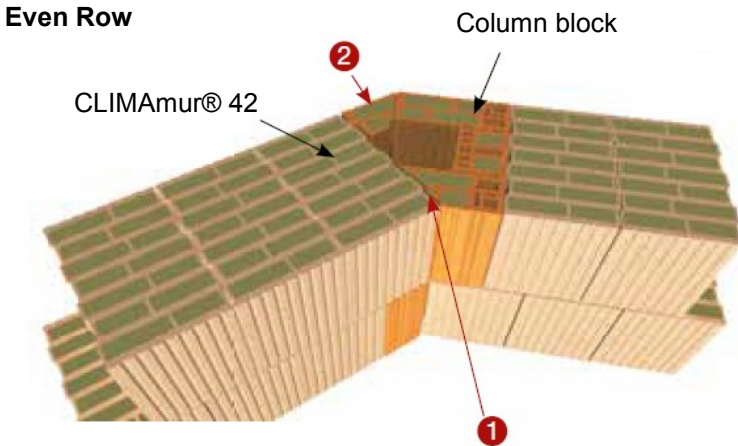


Vertical Wall at 45°

Odd Row



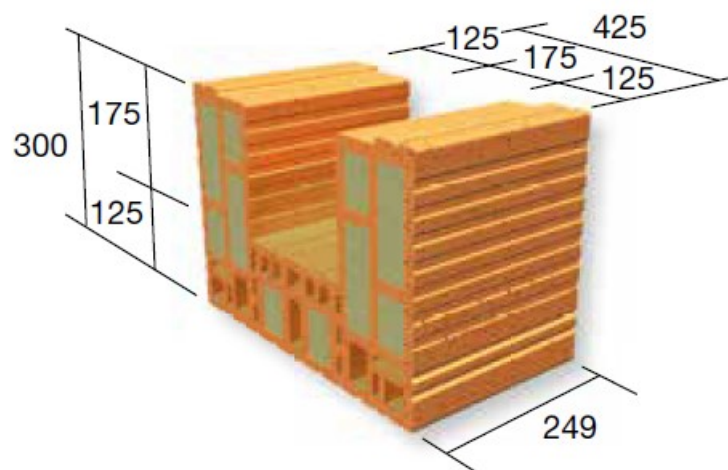
Even Row



Angle cut on column 1 and repositioned in 2

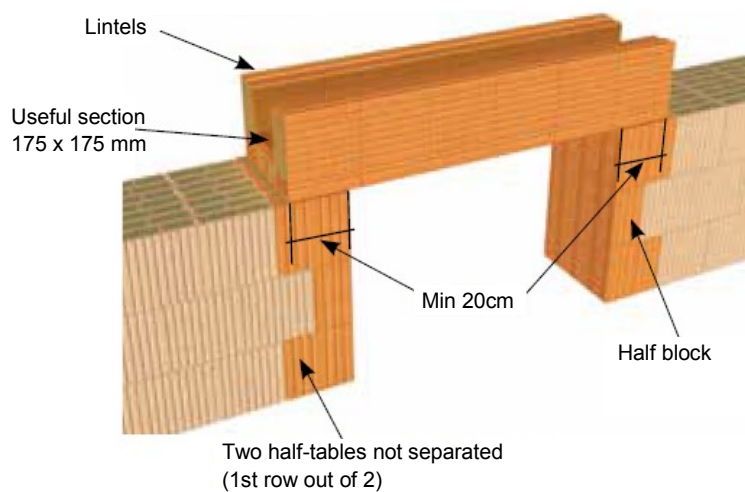
## Lintels

Concrete dimensions in mm

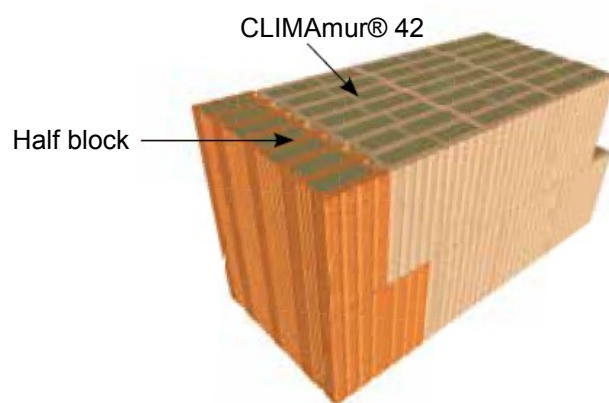
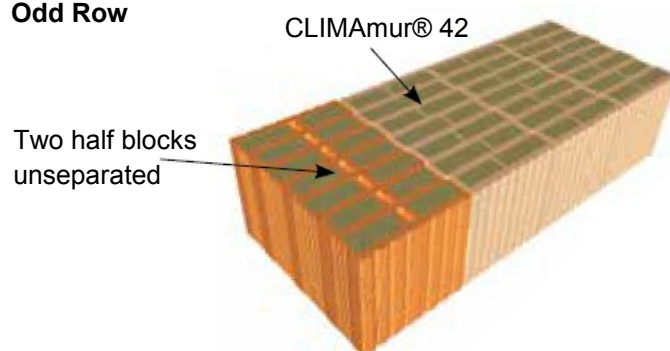


## Support Lintels

The bearing length of the lintels on the masonry is determined by calculation and may not be less than 20 cm (NF DTU 20.1 standard)



### Odd Row



The carpentry is laid in tunnel

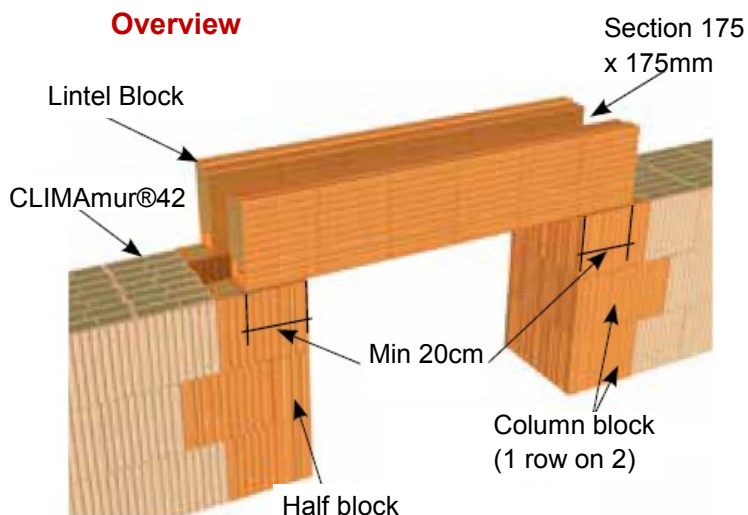




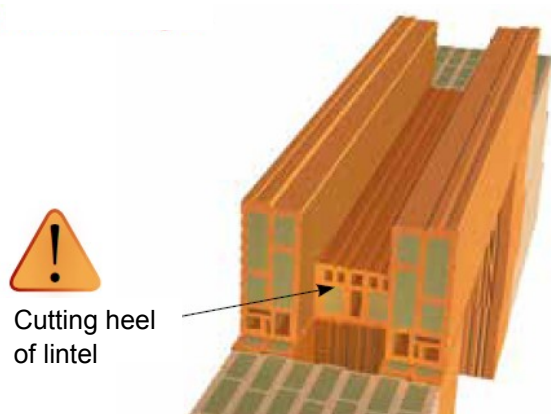
## Lintels in Seismic Zones

The bearing length of the lintels on the masonry is determined by calculation and may not be less than 20 cm (NF DTU 20.1 stand-)

### Overview

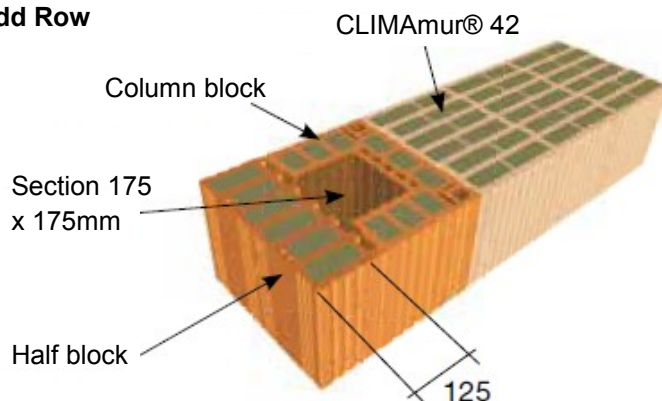


### Detail cut-out heel brick lintel for binding of the joints

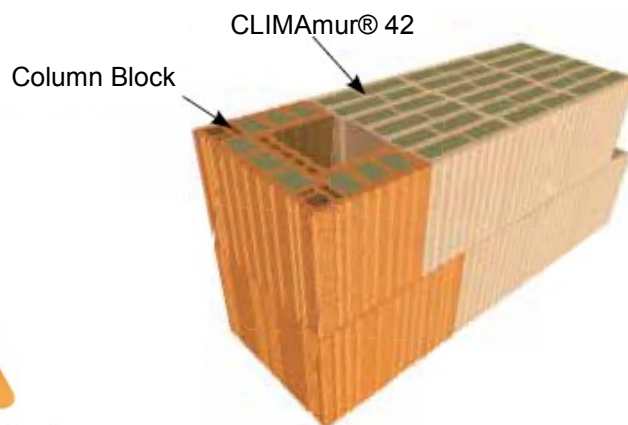


### Table-top blocks

#### Odd Row

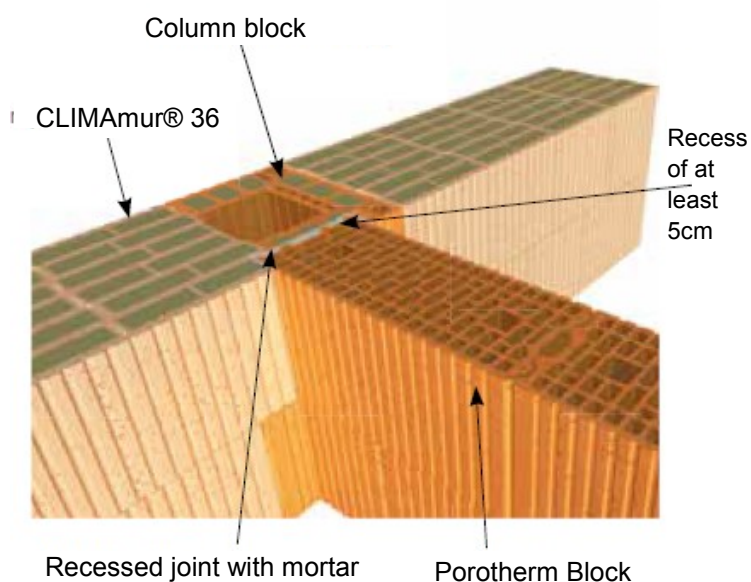


#### Even Row

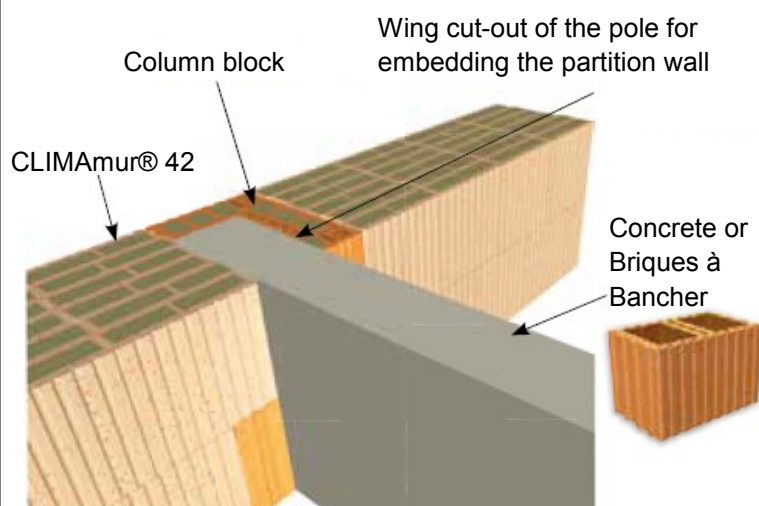


## Exterior Wall / Split Wall Joints

### Porotherm block



### Concrete slabs or Vertical Bonding Bricks

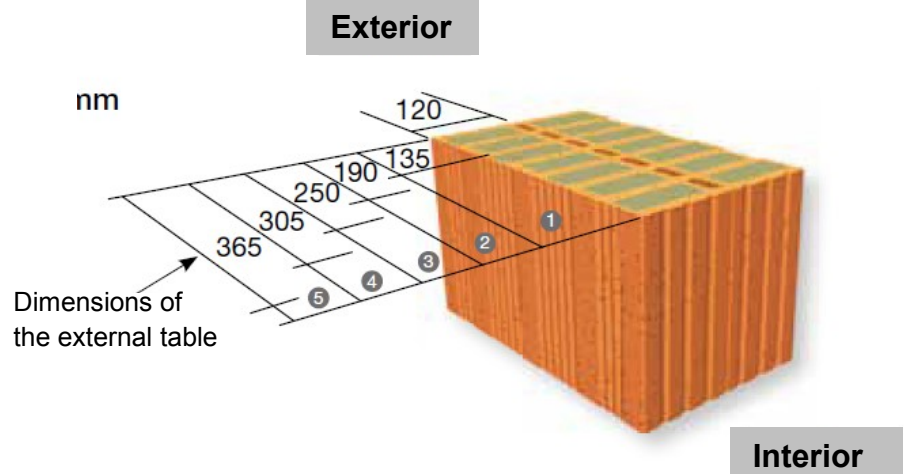


## Openings

### Half Block CLIMAmur 42

Possible rebates dimensions in mm

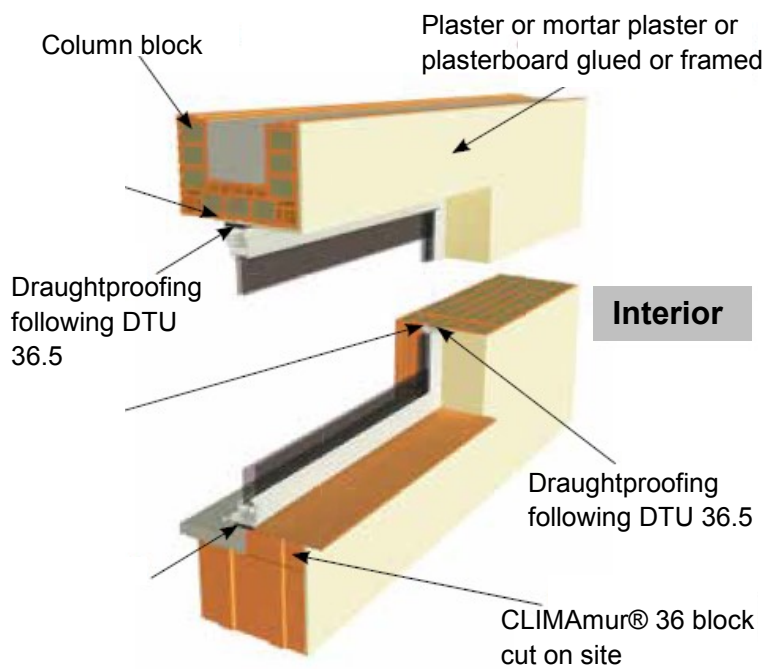
1. 290 x 120mm
2. 235 x 120mm
3. 175 x 120mm
4. 60 x 120mm



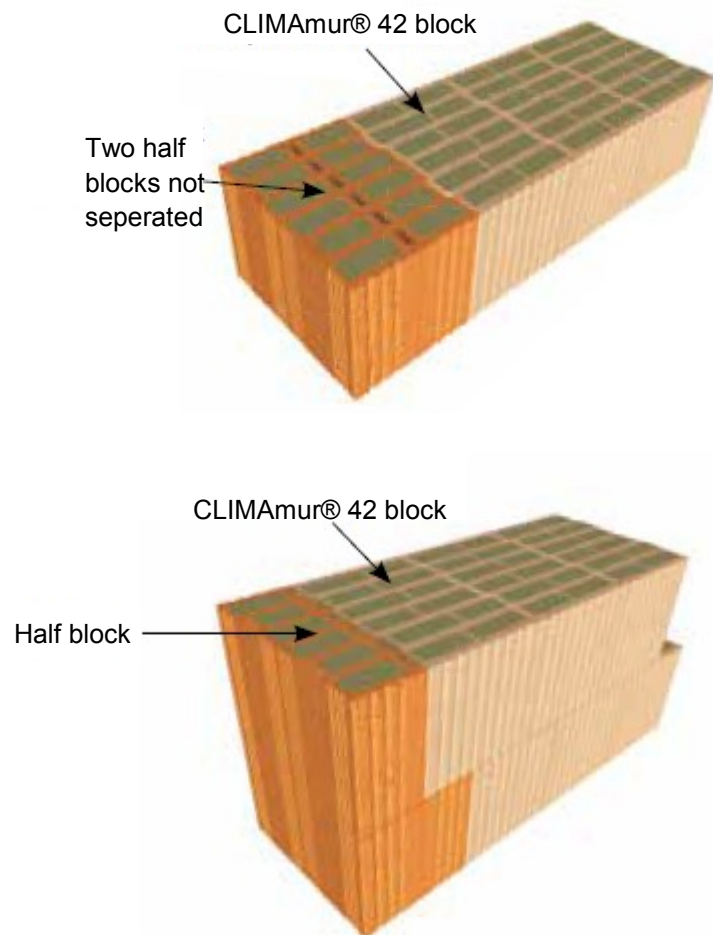
For certain dimensions, the carpentry is laid in tunnel under lintel

### Joinery Installation

#### Exterior

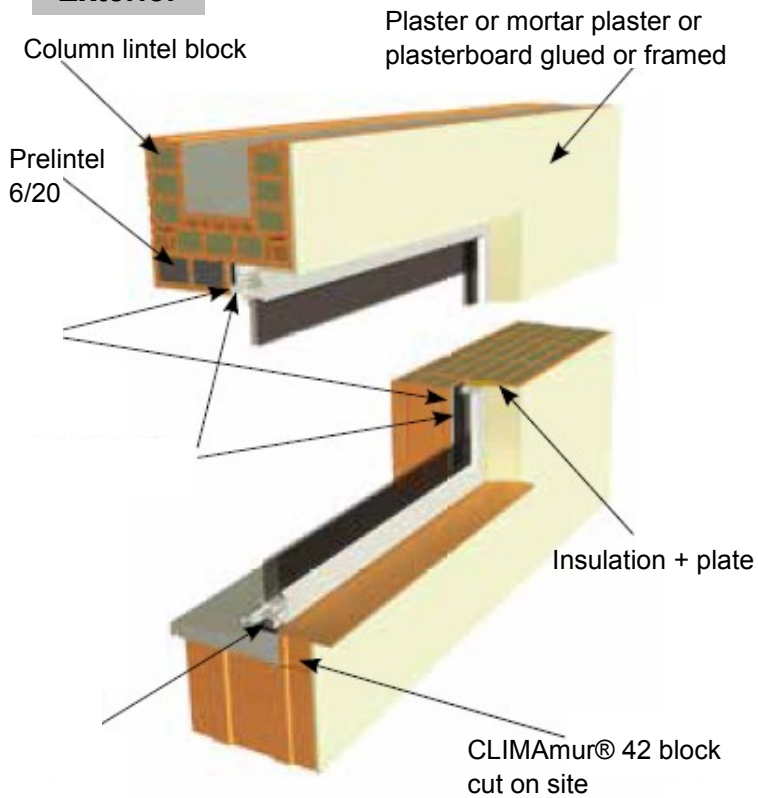


#### Table top blocks



## Joinery installation in rebate with 20 cm board

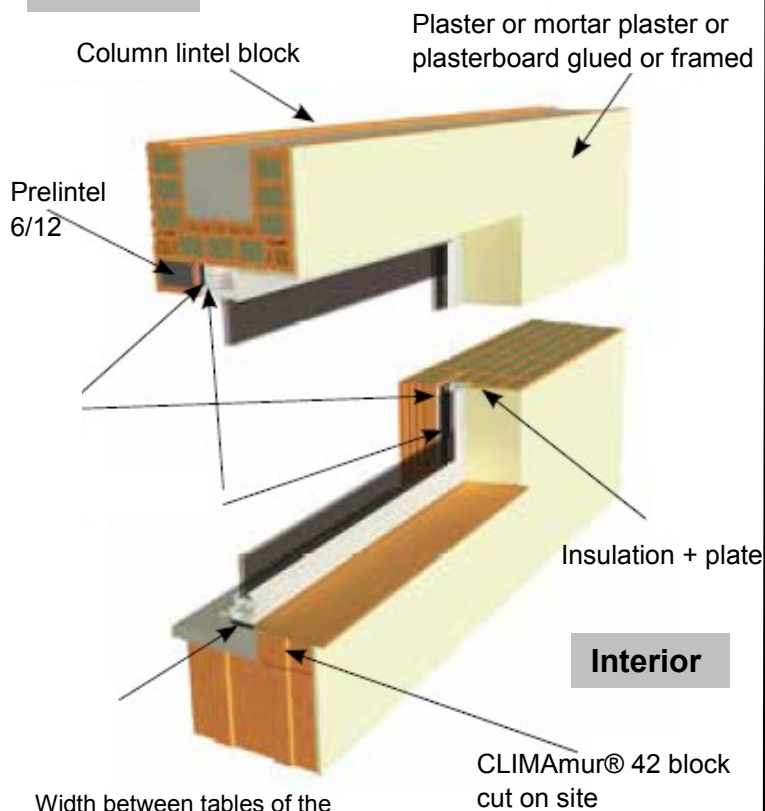
### Exterior



### Interior

## Joinery installation in rebate of 12 cm

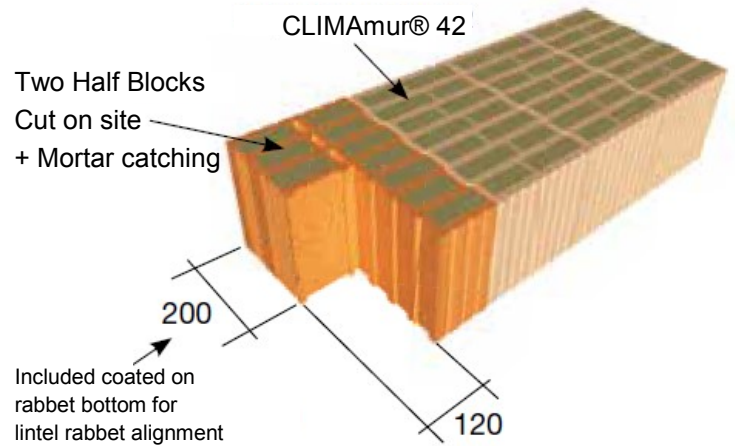
### Exterior



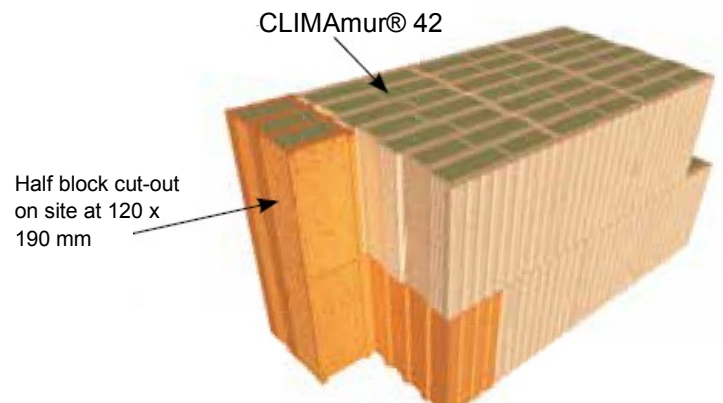
### Interior

## Table top blocks

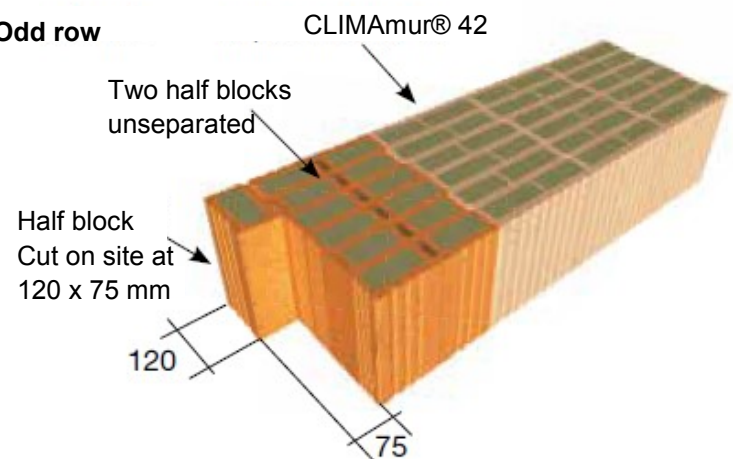
### Odd row



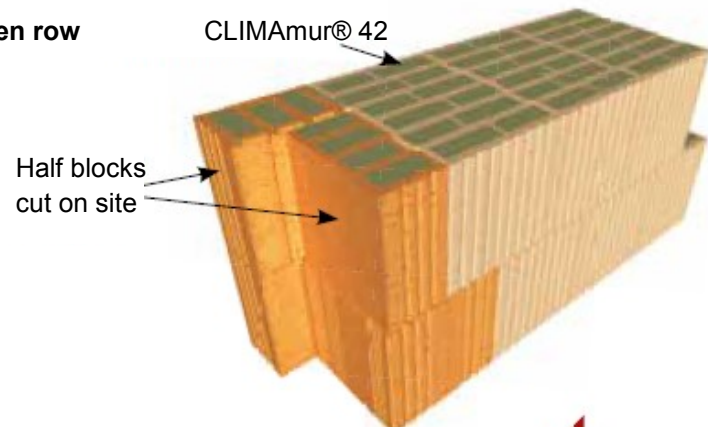
### Even row



### Odd row



### Even row

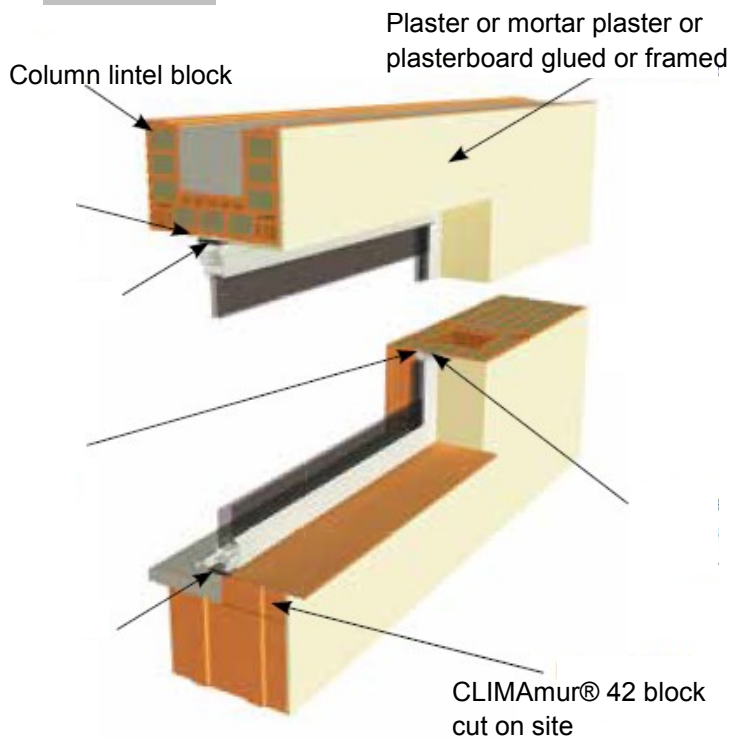






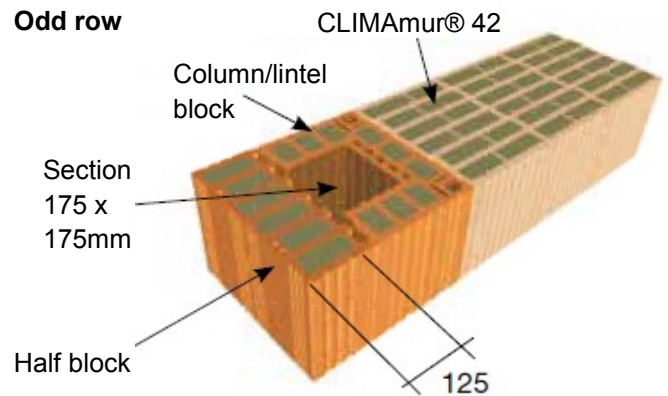
## Openings - Installation in seismic zone

### Exterior



### Interior

#### Odd row

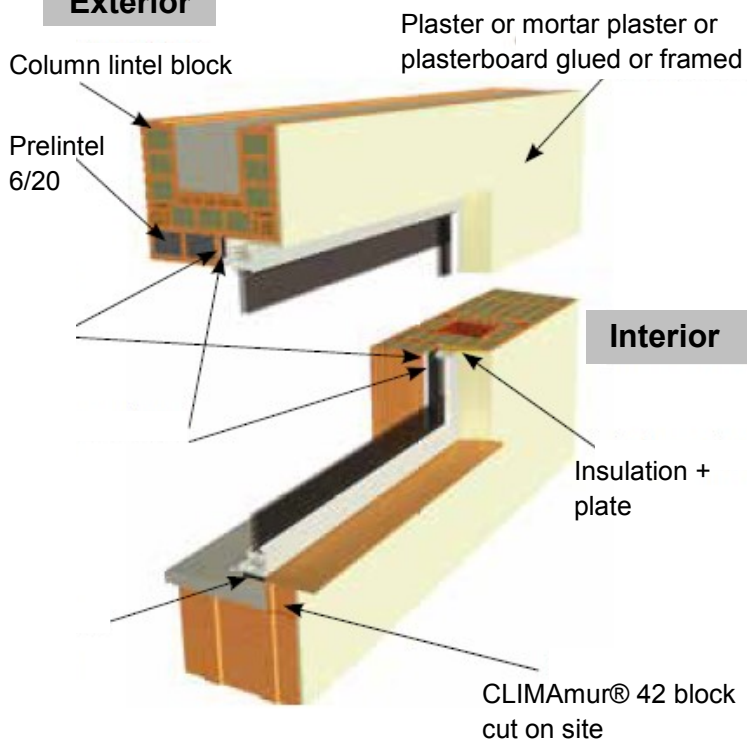


#### Even row



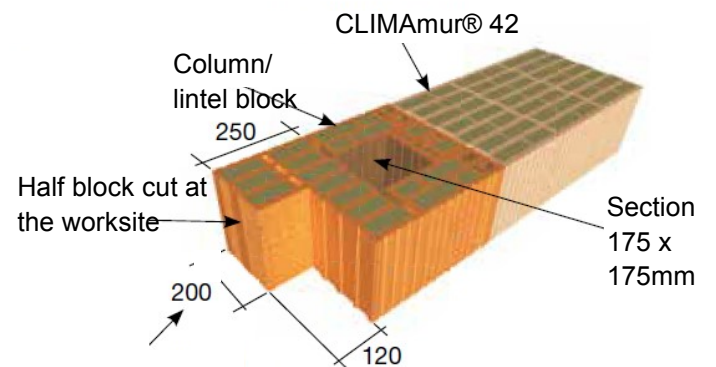
## Joinery installation in rebate of 20 cm

### Exterior

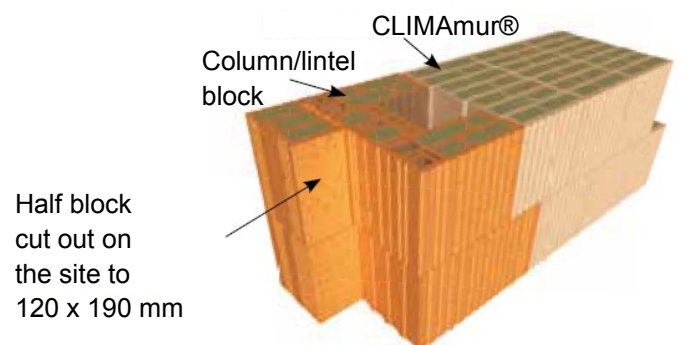


Width between tables of the opening limited to 2.40 m

#### Odd row

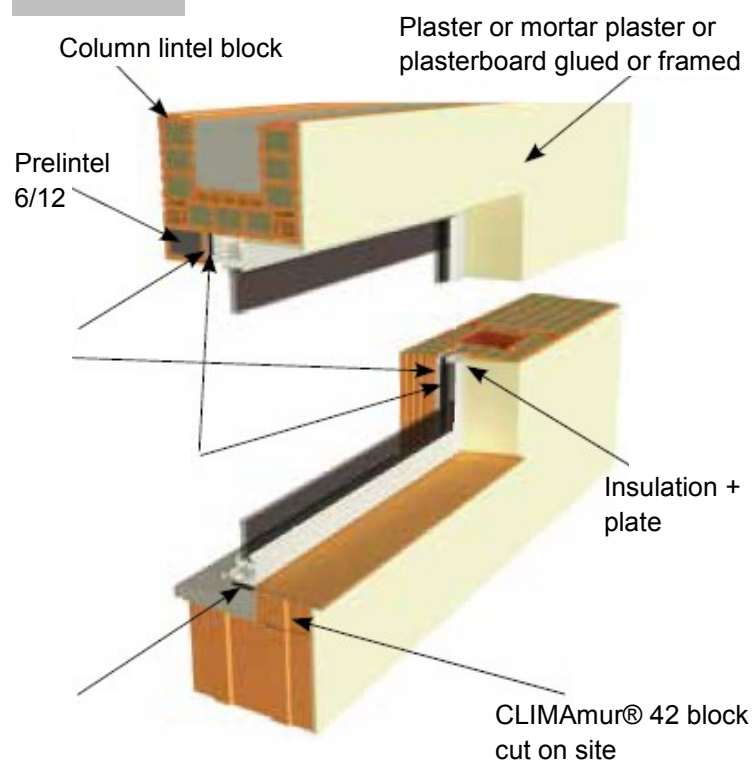


#### Even row



## Joinery installation in rebate of 12 cm

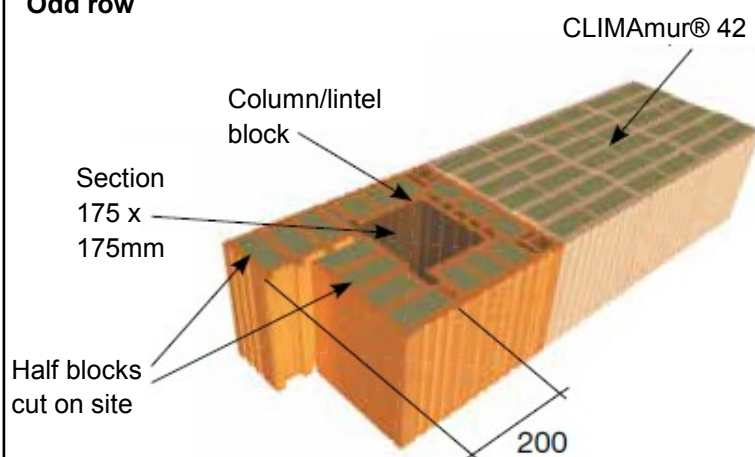
### Exterior



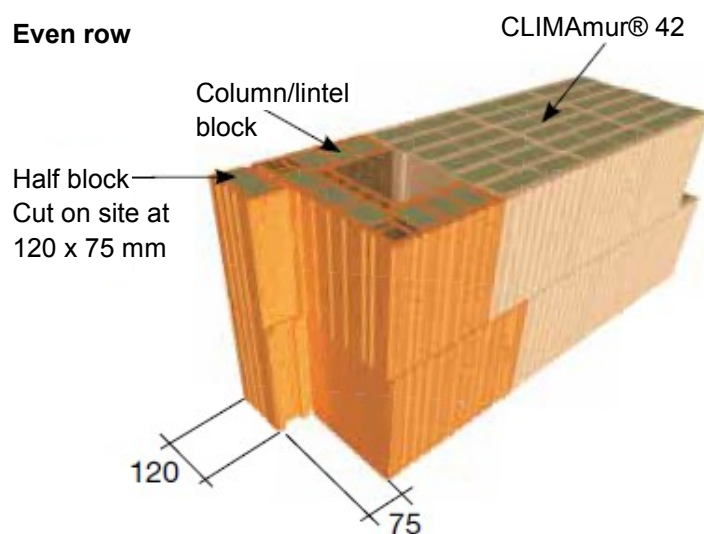
### Interior

Width between tables of the opening limited to 2.40 m

### Odd row



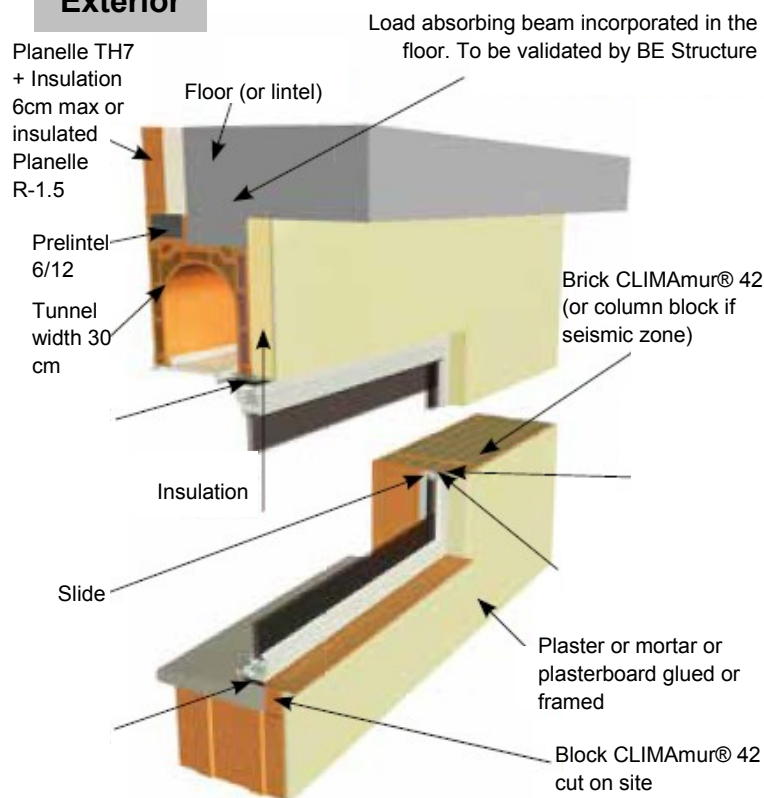
### Even row



## Openings with roller shutters

### With 30 cm tunnel box, aligned on the outside

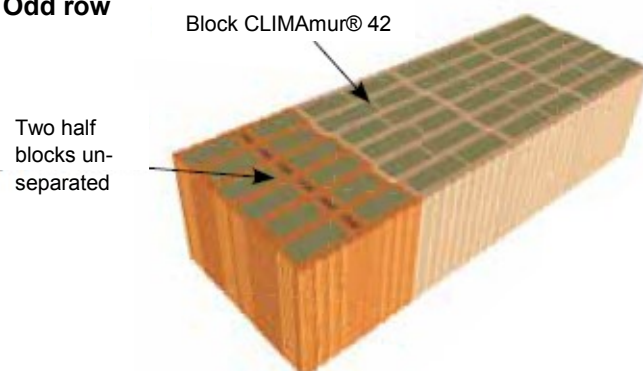
#### Exterior



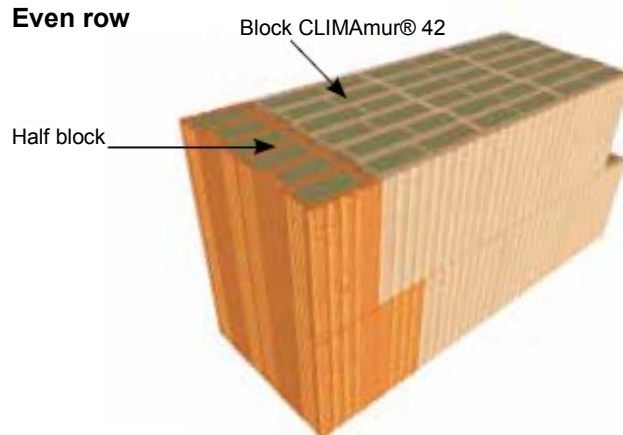
Width between tables of the opening limited to 2.40 m. Beyond this, provide loads per posts on each side of the bay

#### Interior

#### Odd row

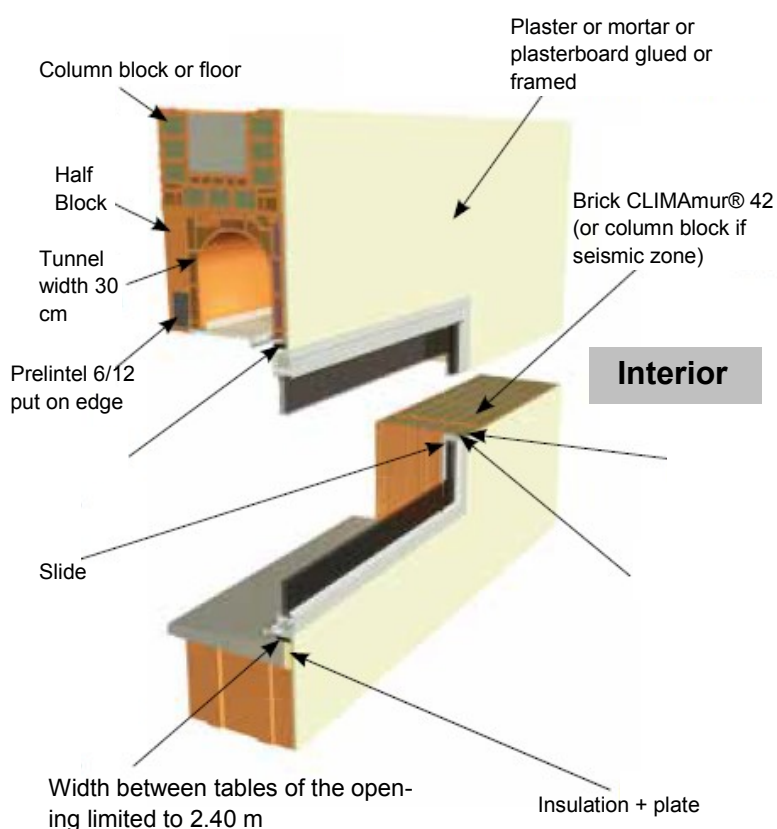


#### Even row



### With 30 cm tunnel box, aligned on the inside

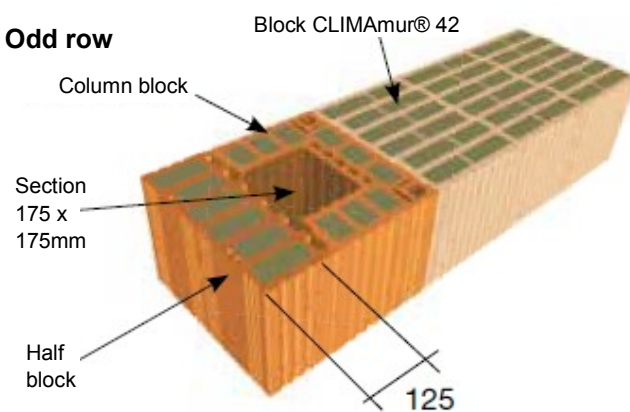
#### Exterior



#### Interior

### If Seismic Area

#### Odd row



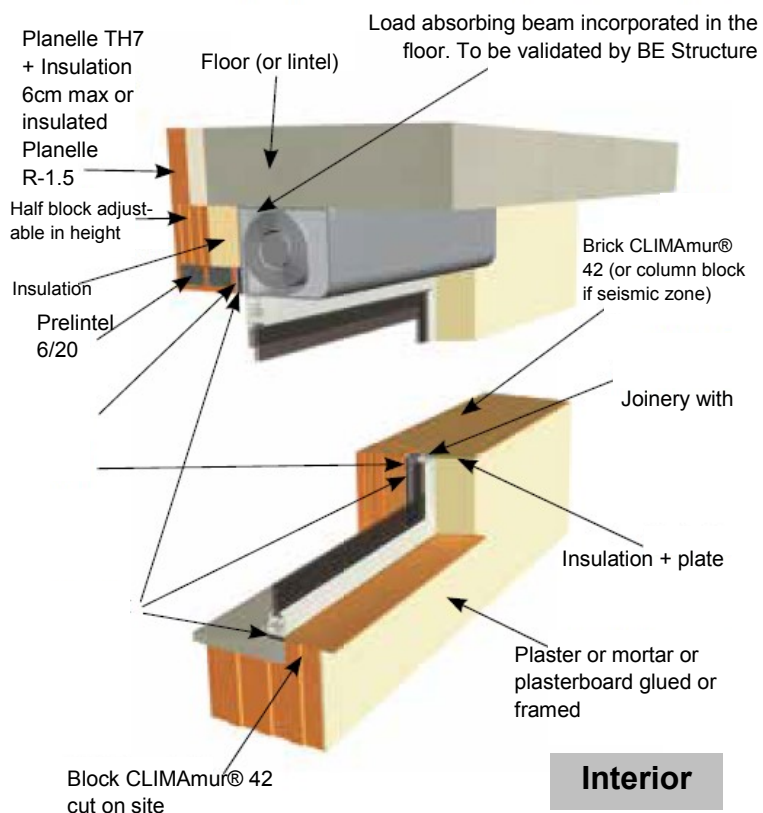
#### Even row





## With one-piece roller shutter

### Exterior

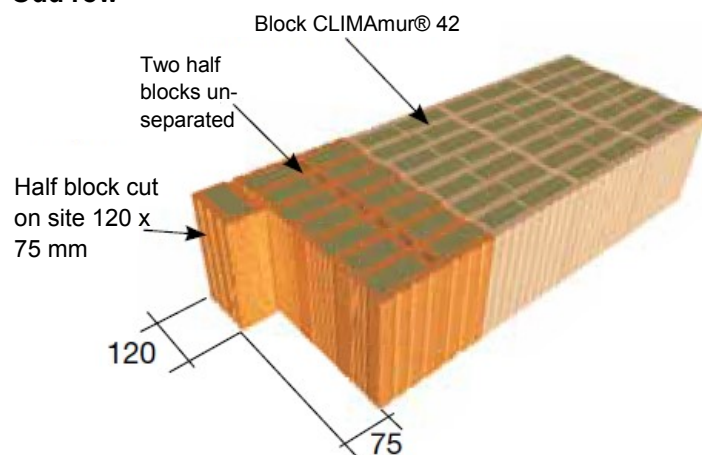


Width between tables of the opening limited to 2.40 m.

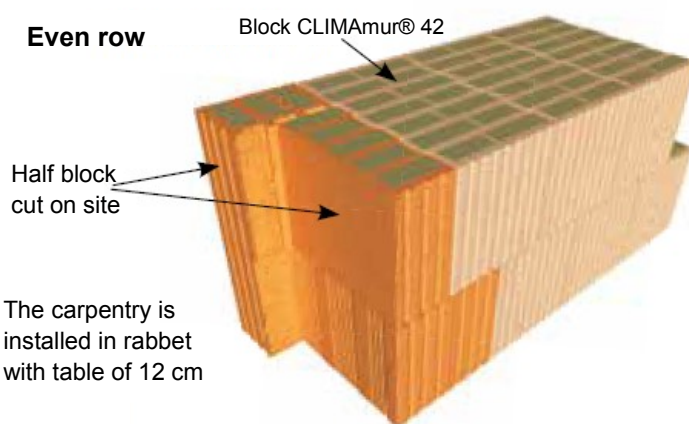
### Interior

## With Half Blocks

### Odd row



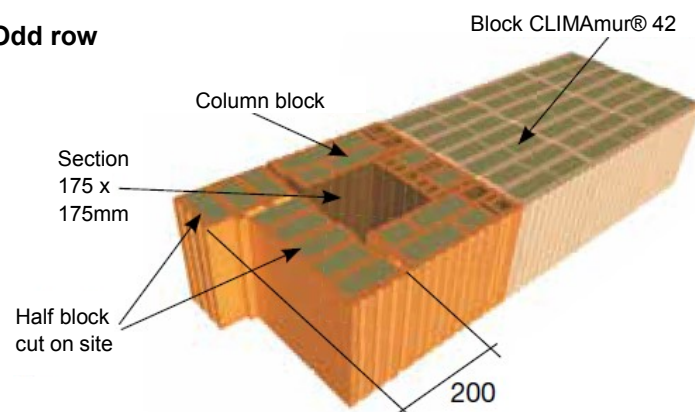
### Even row



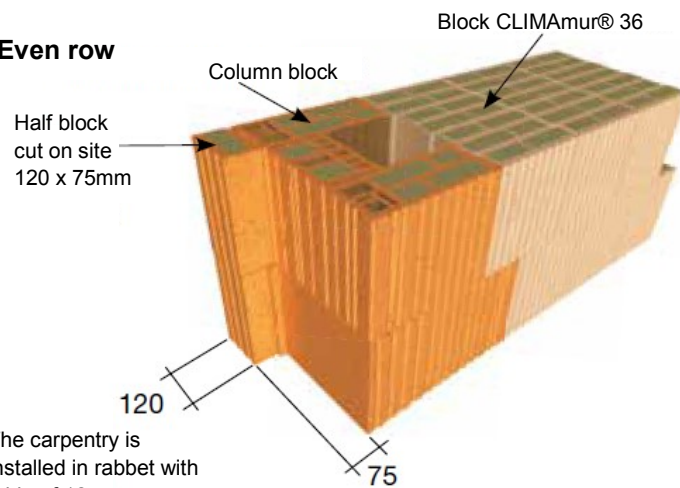
The carpentry is installed in rabbet with table of 12 cm

## In Seismic Areas

### Odd row



### Even row

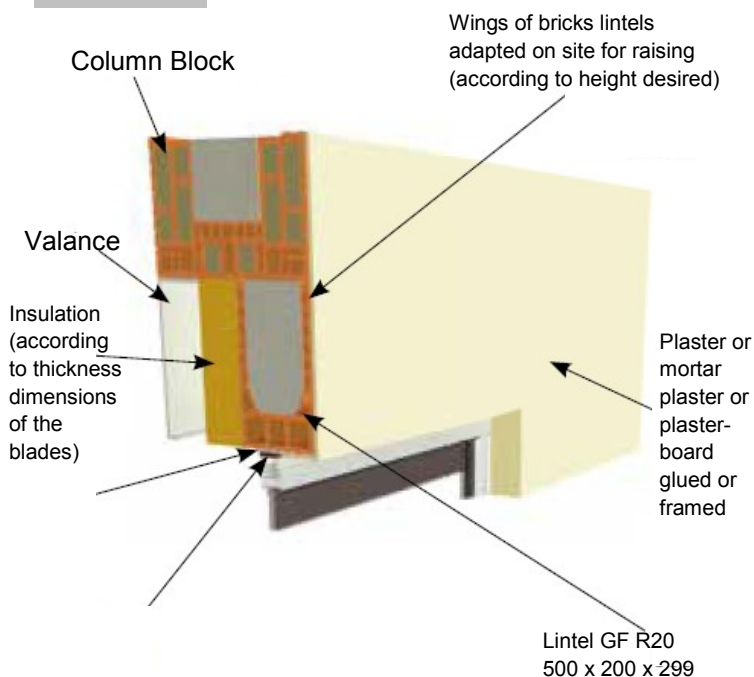


The carpentry is installed in rabbet with table of 12 cm

## Openings with Solar Shading?

### Under lintels?

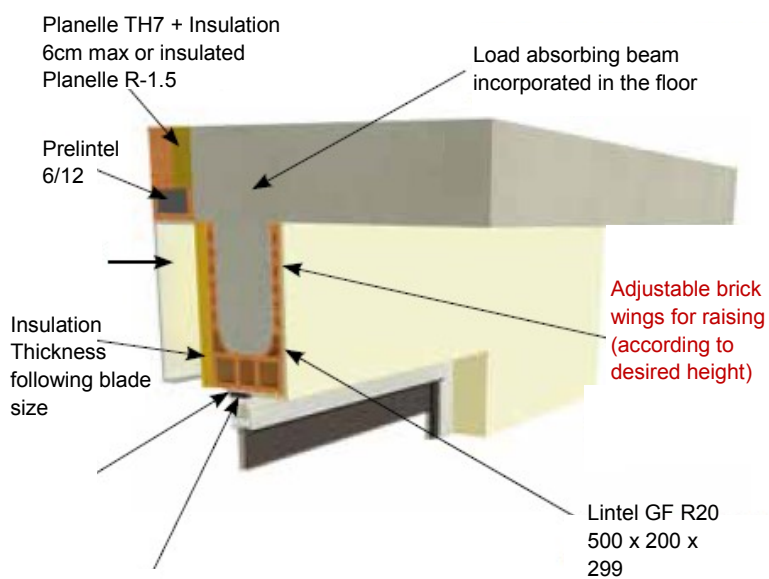
#### Exterior



#### Interior

### Under floor

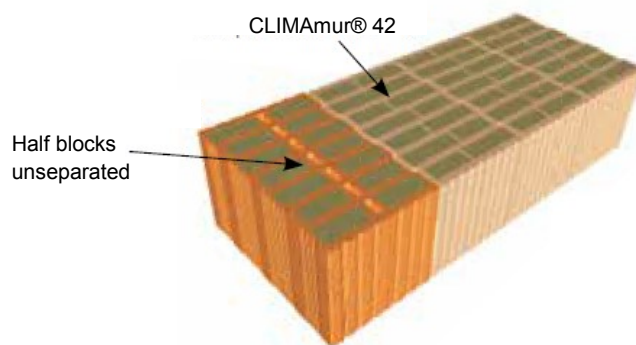
#### Exterior



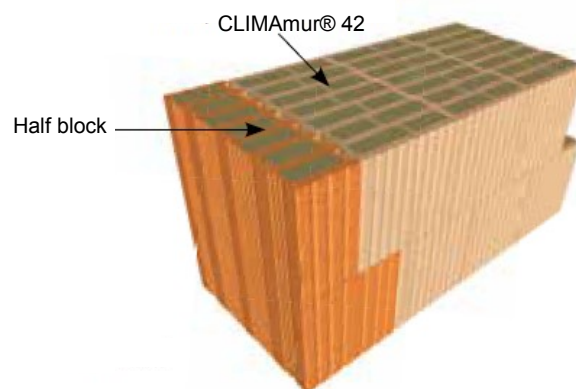
#### Interior

Width between tables of the opening limited to 2.40 m

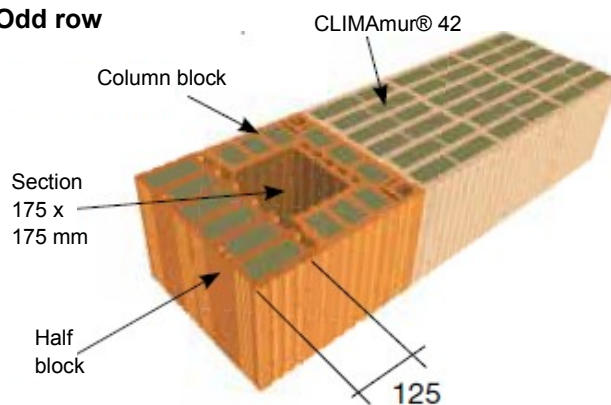
### Odd row



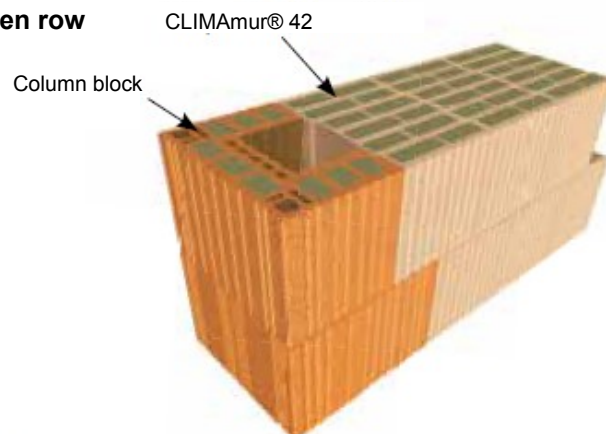
### Even row



### Odd row



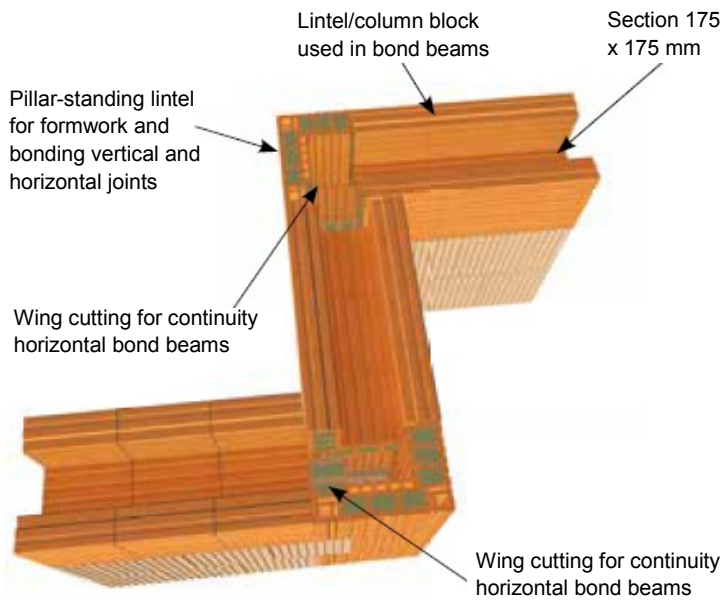
### Even row



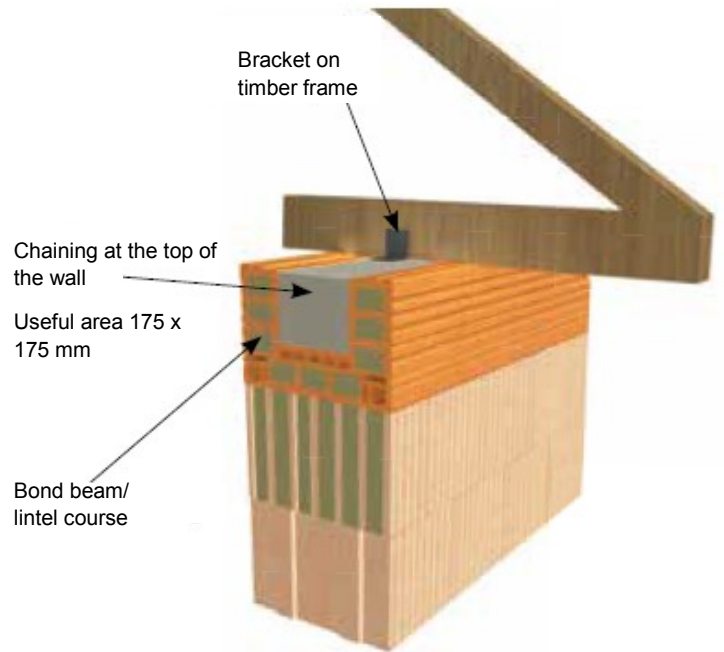


## Bond Beams

### Horizontal Course



### Link with Roof Trusses



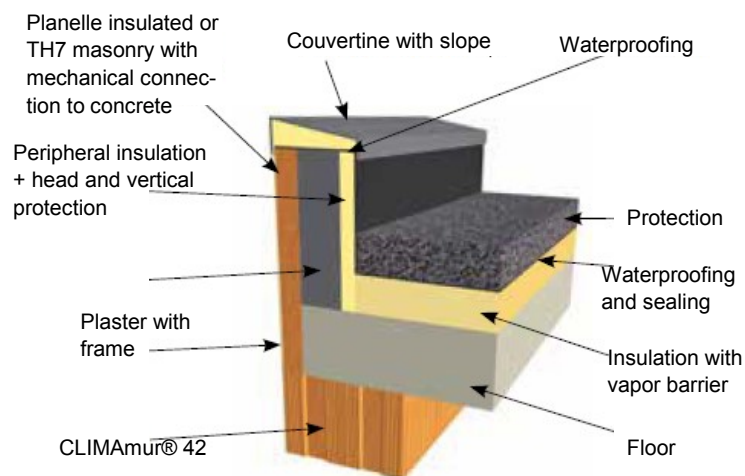
## Parapet Walls?

Provisions must comply with the current DTU and Technical Advice

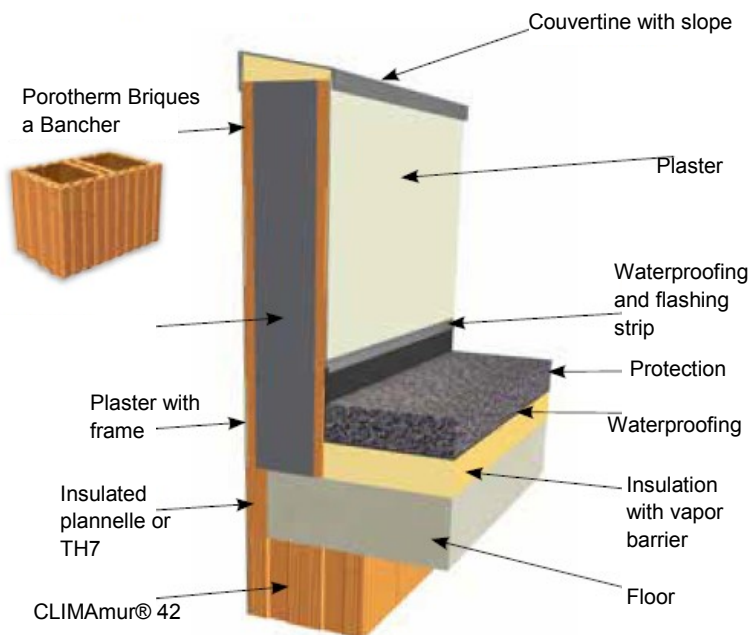
### Low Parapets

(Height above the sealing protection 300 mm)

#### ◆ Example with planelles



#### ◆ Example with Briques a Bancher



## CLIMAmur®

the new range of climate bricks with integrated 100% mineral insulation, sound insulation is strengthened through the rock wool integration into its cells.

### The Rolling Masonry®

Wienerberger was the originator of Rolling Masonry in 1996

- Saves time and reduces tasks
- A neat and clean wall
- 98% material savings
- Preserves the environment: reduction of water consumption and transport of materials.

### A new Masonry Roller

A new helical roller allows use on bricks CLIMAmur

Even more precise, it offers a better hold on the walls of the bricks and a more regular deposit of the mortar



**Wienerberger**

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