

# OPERATIVE ASSEMBLY MANUAL



**ISOTEX,**  
THE CONSTRUCTION SYSTEM THAT COMBINES  
QUALITY, SAFETY, SPEED OF INSTALLATION  
AND COST REDUCTION



**ISOTEX**<sup>®</sup>  
Wood-cement blocks and floor slabs

★ ★ ★ ★ ★  
EUROPEAN LEADER  
FOR OVER 30 YEARS  
★ ★ ★ ★ ★

# ISOTEX<sup>®</sup>

Wood-cement blocks and floor slabs

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THE CONSTRUCTION SYSTEM WHICH MARRIES REINFORCED CONCRETE, THE MOST SOLID STRUCTURE, WITH MINERALIZED WOOD, A NATURAL MATERIAL FROM A THOUSAND RESOURCES.



The Isotex establishment

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In 1985, ISOTEX started to produce and market wood-concrete blocks in Italy, after this construction system had been already used in Germany since 1946.

From that day on, some 400.000 dwellings have been built with ISOTEX all over Europe, of which some 80.000 in Italy alone, meeting with the approval of specialists, builders and end users.

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1976



The Nurnberg Building

1985



The residential district of Fidenza (PR)

2004



The Capo Coda Cavallo Hotel Project (NU)

2019



Multi-floor buildings in Bologna



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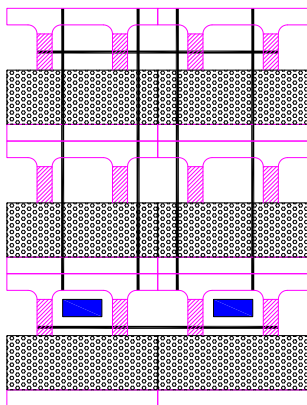
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# CORRECT TRANSFER OF PACKS FROM THE VEHICLE TO THE GROUND

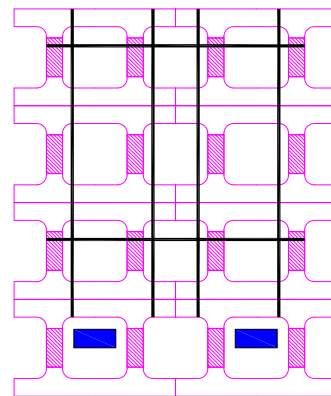
1. The packs are transferred one at a time, using equipment and procedures in full compliance with current applicable Standards on safety;
2. The packs are moved by insertion of the appropriate equipment into the first row of blocks through the whole depth of the pack itself (see figure);
3. The movement is carried out while avoiding brusque and sudden displacements;
4. The packs are rested on the ground, on a flat surface without changes of level or roughness;
5. Do not stack more than 2 packs on the ground;
6. Movement of packs on the ground within the yard must comply with the safety provisions of Legislative Decree 81/2008 - Heading IV;
7. Before moving the packs, check that the supports are in good condition.

## CORRECT POSITION FOR UNLOADING

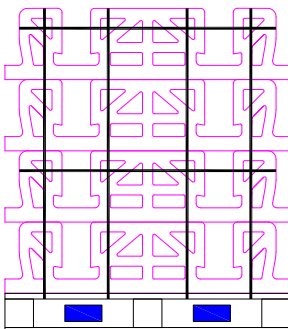
PACK OF "HDIII WITH INSULATOR" BLOCKS



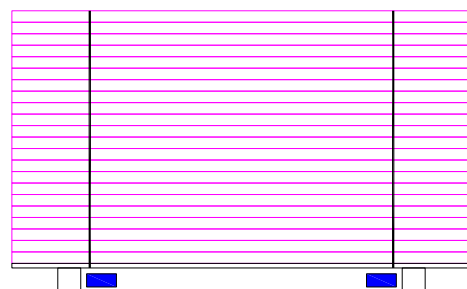
PACK OF "HB/HD WITHOUT INSULATOR" BLOCKS



PACK OF BLOCKS ON PALLET "CORNER BLOCK - ANGLED AS REQUIRED - FLOORING PANEL ELEMENTS"



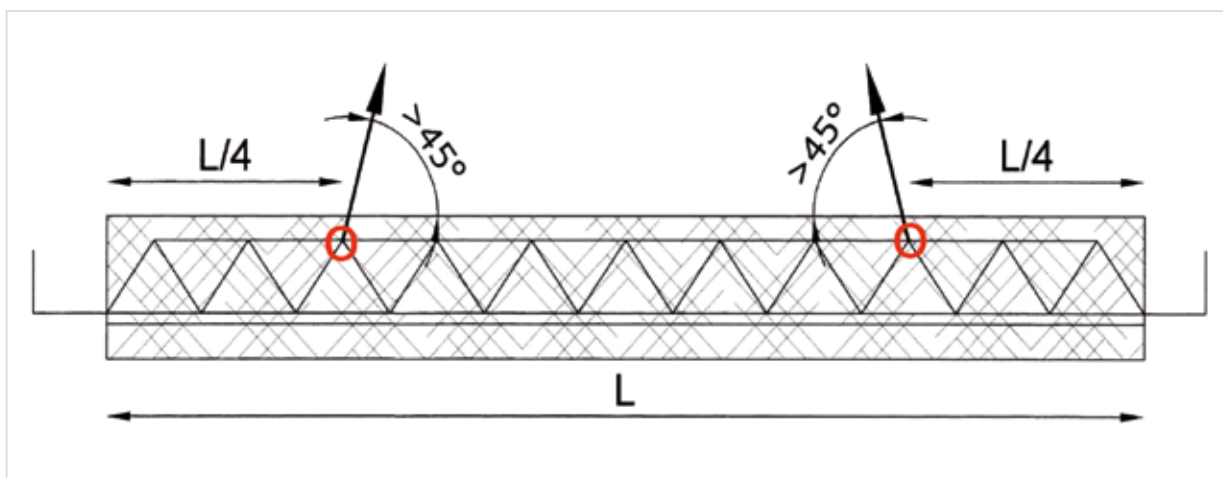
PACK OF PANELS



## MOVEMENT OF FLOOR SLABS

The lifting points of flooring panels are identified in red on the panels themselves, and lifting must be carried out with four chains of suitable length (as in the illustration).

Movement operations must always comply with current applicable safety Standards.



# STANDARD BLOCKS (NS)



Block HB 20



Block HB 25/16



Block HB 30/19



Block HB 44/15 - 2



Block HDIII 30/7 graphite  
(BASF-NEOPOR®)



Block HDIII 33/10 graphite  
(BASF-NEOPOR®)



Block HDIII 38/14 cork



Block HDIII 38/14 graphite  
(BASF-NEOPOR®)



Block HDIII 44/20 graphite  
(BASF-NEOPOR®)

# SPECIAL BLOCKS AND COMPLEMENTARY BLOCKS



PASS block of 30 - 33 - 38 - 44 cm



Shoulder block of 38 - 44 cm



Universal block (UNI)  
of 38-44 cm for external corners



Universal block (UNI) of 30-33 cm  
for external corners and shoulders



Block for internal corners  
of 30-33-38-44 cm



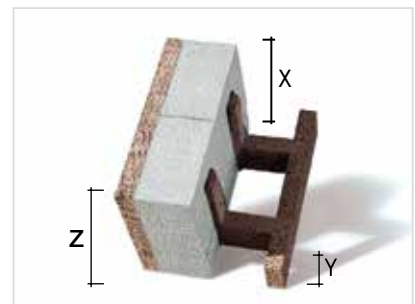
Wall pillar block of  
33 cm section CLS 25x38 cm  
\*38 cm section CLS 30x38 cm  
\*44 cm section CLS 33x39 cm  
\*Possibility of inserting 5 cm insulator  
\*\*Possibility of inserting 8 cm insulator



Half block shoulder of 44 cm



Block with angle at will  
of 25-30-33-38-44 cm  
**(special blocks)**



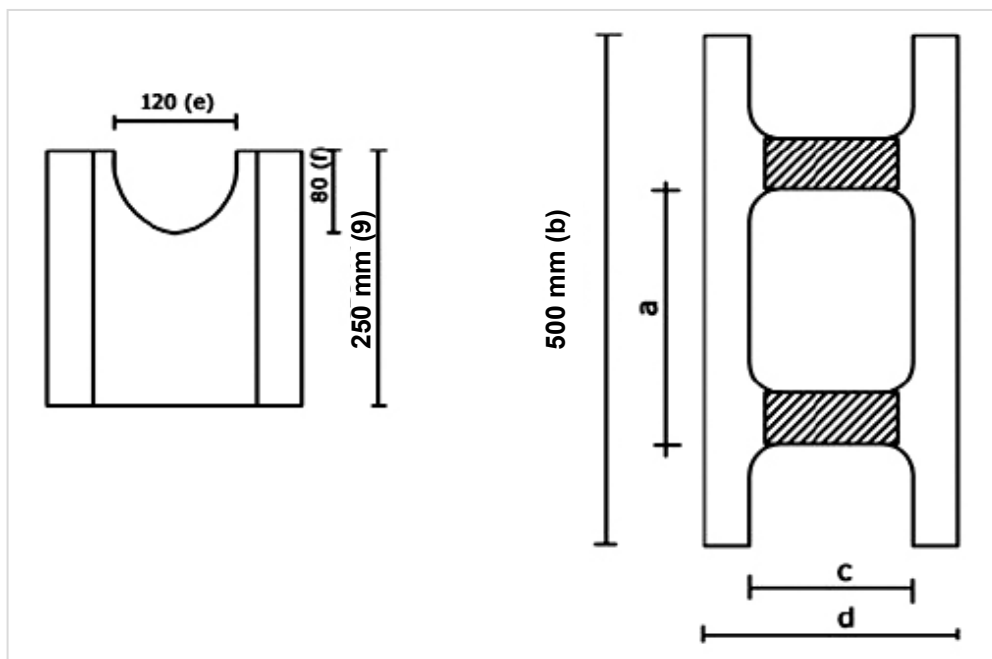
Correa slab block  
x = as required  
y = as required  
z = x + y  
**(special blocks)**

# BLOCK DIMENSIONS AND TOLERANCES

**PLEASE NOTE:** all Isotex blocks are 500 mm length and 250 mm high. 1 square meter corresponds to 8 blocks

Length (b) and width (d)  $\pm 5$  mm  
Height (G)  $\pm 2$  mm

Holes for concrete + 5 mm/ -2 mm  
Horizontal lunettes (e-f) + 10 mm/ -3 mm



## CUTTING OF BLOCKS

The blocks are easily cut using the following devices which will attach as utensils to the Widia tool:

- a. Multifunction saw;
- b. Band saw;
- c. Electric chain saw;
- d. Other appropriate equipment.

**a.**



**b.**



**c.**





## METHOD FOR REQUESTING MATERIAL

- Applications for material must be forwarded by fax or e-mail at least 5 working days before the consignment date.
- Un an articulated lorry carries 52 packs
- A lorry carries 24 packs

## BLOCKS WITHIN A PACK

- **QUANTITY (in m<sup>2</sup>) OF BLOCKS WITHIN A PACK:**
  - 1 pack of 20 cm blocks measures 6 m<sup>2</sup>
  - 1 pack of 25 cm blocks measures 5 m<sup>2</sup>
  - 1 pack of 30 cm blocks measures 4 m<sup>2</sup>
  - 1 pack of 33 cm blocks measures 4 m<sup>2</sup>
  - 1 pack of 38 cm blocks measures 3 m<sup>2</sup>
  - 1 pack of 44 cm blocks measures 3 m<sup>2</sup>

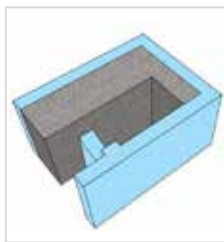
## BLOCK PALLETS

- **PACKS OF BLOCKS ARE SUPPORTED ON:**

PASS blocks  
(length 45-42-37-31 cm) = green supports



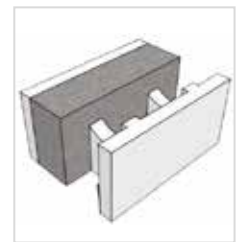
SHOULDER blocks  
(for doors and windows) = blue supports



UNI blocks  
(for corners) = orange support



NS (standard) blocks  
= black supports



Please note: NS (normal) blocks of 33 cm = white or white/black supports

## SLABS ON ARTICULATED LORRY

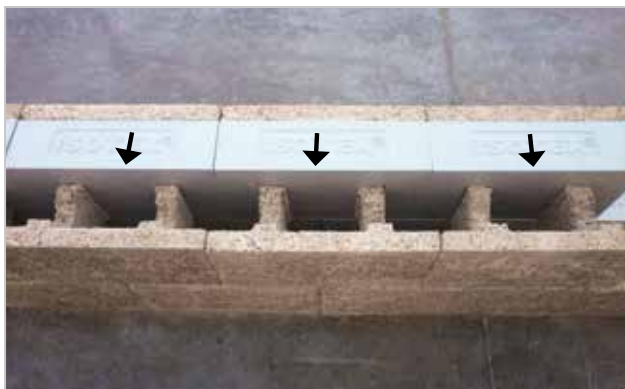
- **ON AVERAGE, AN ARTICULATED LORRY CAN TRANSPORT:**
  - S20 SLAB = 170 ÷ 180 m<sup>2</sup>
  - S25 SLAB = 160 ÷ 170 m<sup>2</sup>
  - S25 + 5 SLAB = 140 ÷ 150 m<sup>2</sup>
  - S39 SLAB = 110 ÷ 120 m<sup>2</sup>

# QUALITY CONTROL WHILE WORKING FOR THE LOCATION OF THE REINFORCEMENT



## Location of the individual horizontal bars:

Rest the individual horizontal bars in the lunettes with spacers at every course of blocks. Overlapping must be 50% greater than that required by current applicable technical Standards.



## Location of the vertical bars:

Position the vertical bar into the central position of the pillar, aligned with the vertical mark inscribed on the polystyrene, which operation is carried out at the same time as pouring the concrete. The above note on overlapping is also valid in this case.



## Location of the horizontal bars:

In the event that double horizontal bars should be required, locate the same in the lunettes with distancers, fixed to the blocks with screws. The above note on overlapping is also valid in this case.

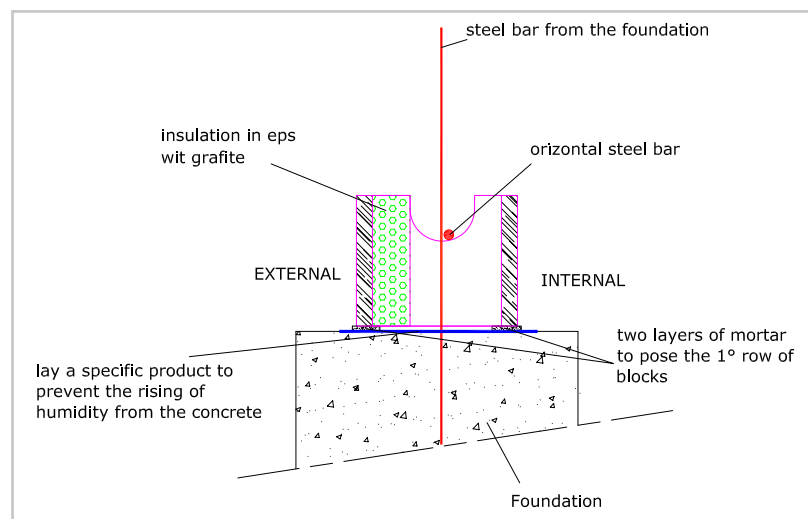
## CORRECT LAYING OF THE FIRST COURSE

While laying the foundations, insertion of the vertical reinforcement should be taken into account with a width of 25 cm (the width of the hole in blocks).

The anchoring length conforming with technical standards must be indicated by the designer. The other possibility, once the foundation has been laid, is the insertion of this vertical reinforcement with resin on the first course of blocks laid (on the indication of the structure's designer).

Laying of the first course is carried out onto

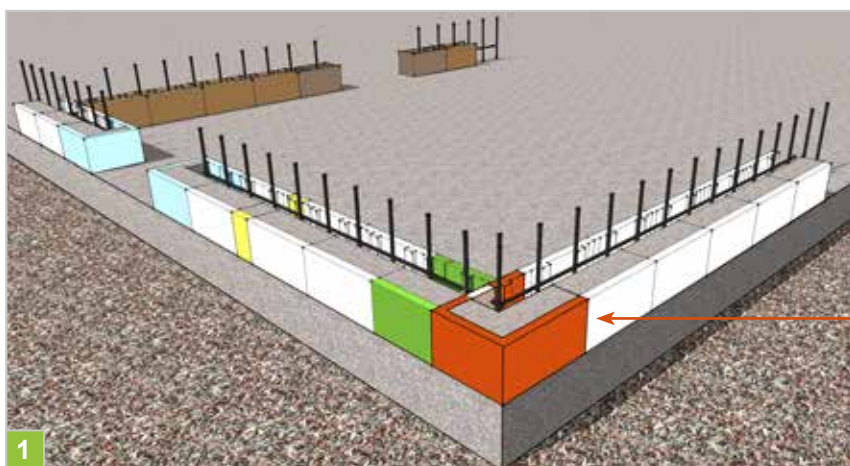
two layers of mortar positioned only in correspondence with the walls of the blocks in order to achieve a good level (use of a spirit level is advised). A layer of mortar over the whole width of the block is to be avoided. The mortar has a much lower resistance to compression to that of the concrete  $R_{ck} \geq 30 \text{ N/mm}^2$ . Position the corners with a plumb line and stretch the line between them. While laying the blocks, it is important to keep to the distance from the line to guarantee not straying from the vertical, the horizontal line of the courses and levelness.



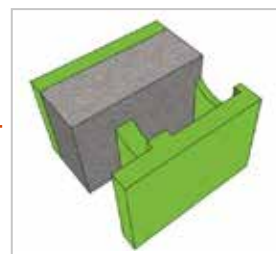
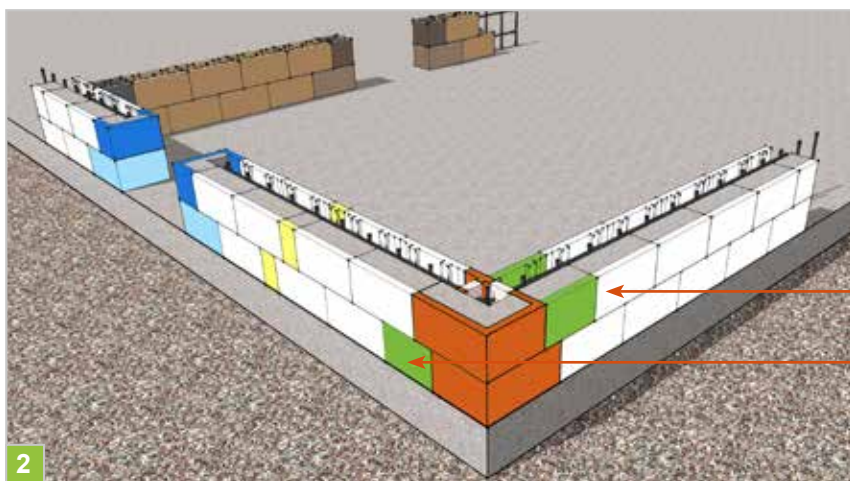
# CORRECT LAYING OF SUBSEQUENT COURSES

Arranged well at the level of the first course, starting from the corner blocks (UNI), we proceed with the laying of the subsequent courses completely dry having the foresight to keep the blocks

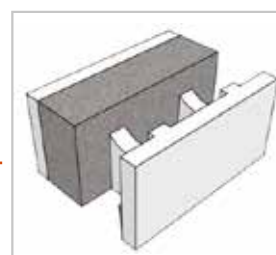
tightly closed to avoid thermal and acoustic bridges. In this way, given the precision of the blocks, the use of insulating foams is avoided which ISOTEX does not recommend the use of.



UNI Block (corner)



PASS Block



NS Block (Standard)

## CORRECT LAYING OF SUBSEQUENT COURSES

It is very important to stagger subsequent courses by half a block, using the special pieces in order to obtain the maximum volume to concrete within the forms, as is necessary to achieve the wall's load bearing capacity.

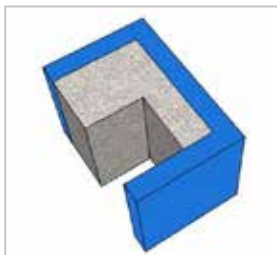
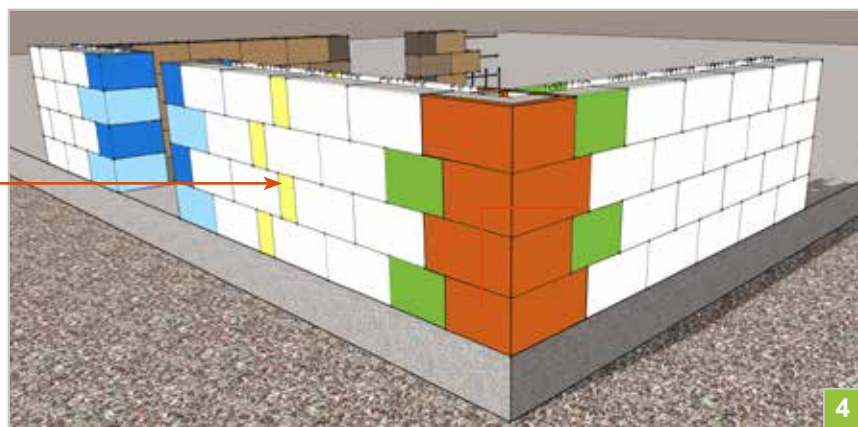
The blocks are always laid with the lunettes facing upwards, for connection of the reinforcement and the concrete. The parts with insulation towards the outside (see the illustration on page 15) and any necessary cut to the block for building the wall to

the design measurements, is done at the centre of the wall. The cut is kept in the same position over subsequent courses to avoid staggering of the pillars within the blocks, with the consequent reduction of load bearing and the difficulty of filling the forms with concrete.

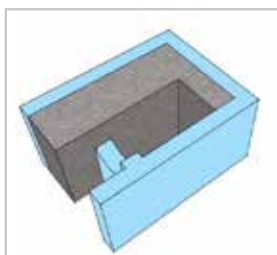
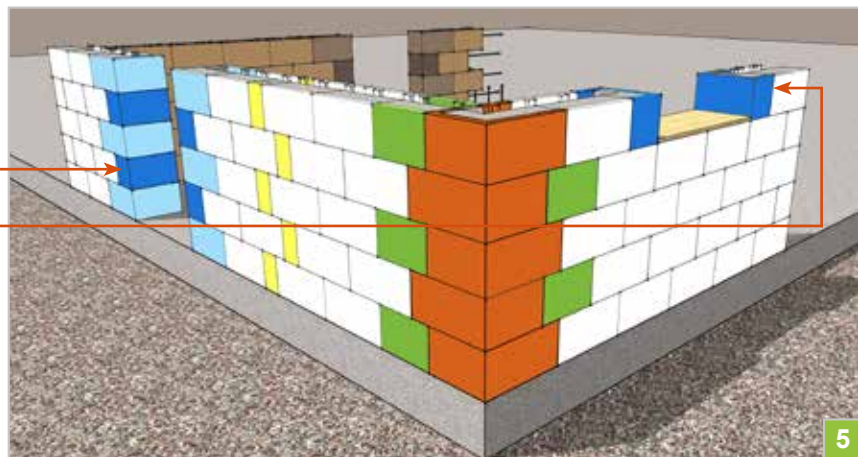
The horizontal reinforcement will be inserted into the appropriate block lunettes at every course, taking care to safeguard the reinforcement cover (see the photo on page 11).



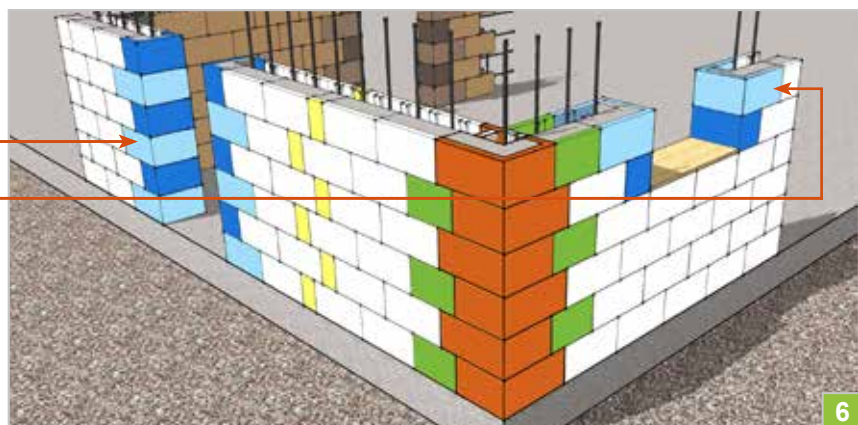
**NS Block to be cut to correct size on building site**



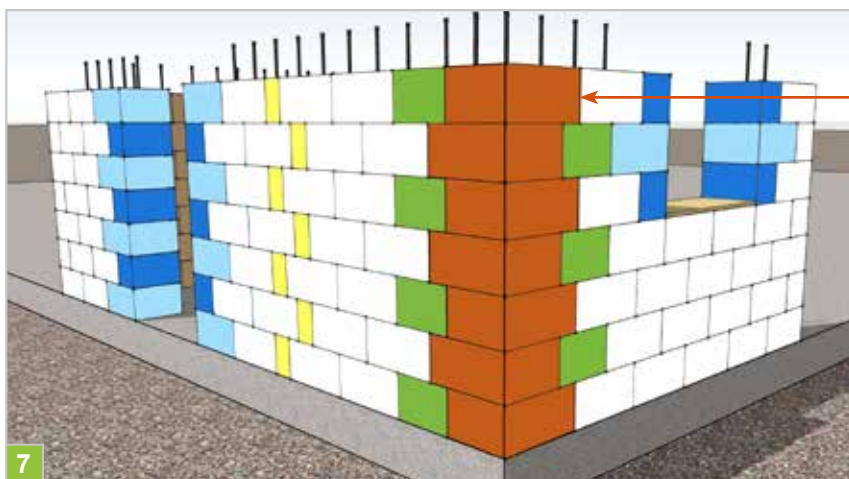
**Half SHOULDER Block to be cut on building site**



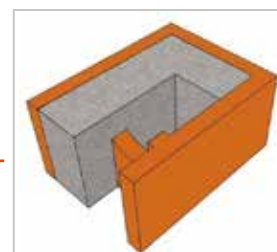
**SHOULDER Block**



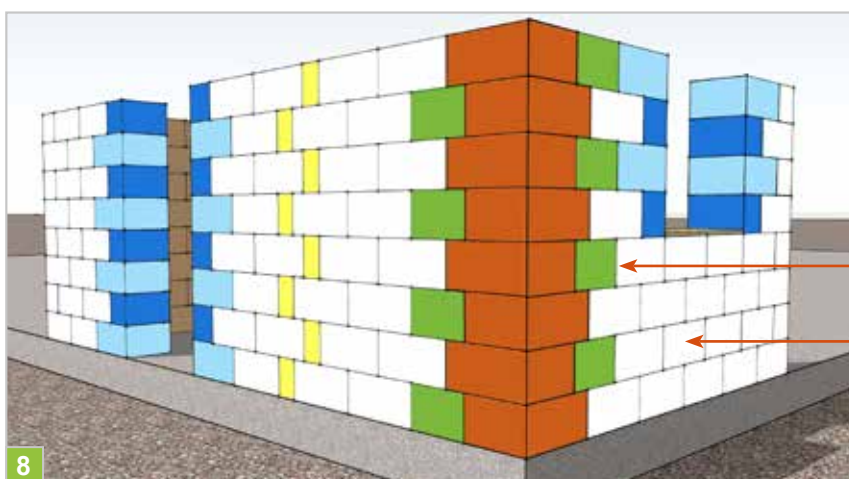
# CORRECT LAYING OF SUBSEQUENT COURSES



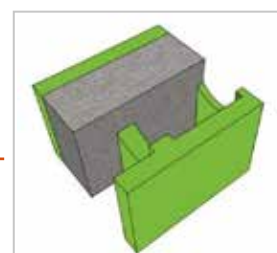
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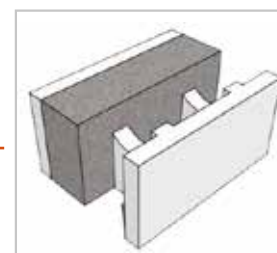
UNI Block (corner)



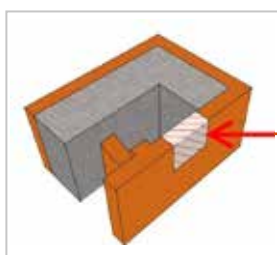
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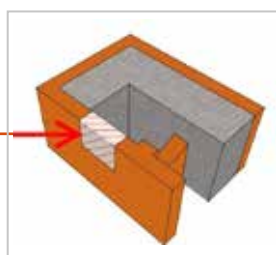
PASS Block



NS Block (Standard)



Course corners  
1-3-5-7-9



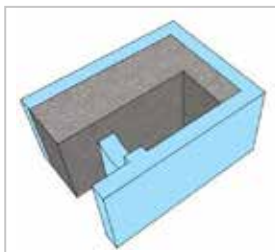
Course corners  
2-4-6-8-10

**CORNER BLOCKS:**  
the cutting of the lunettes is performed for the connection of the reinforcement steel bars and concrete

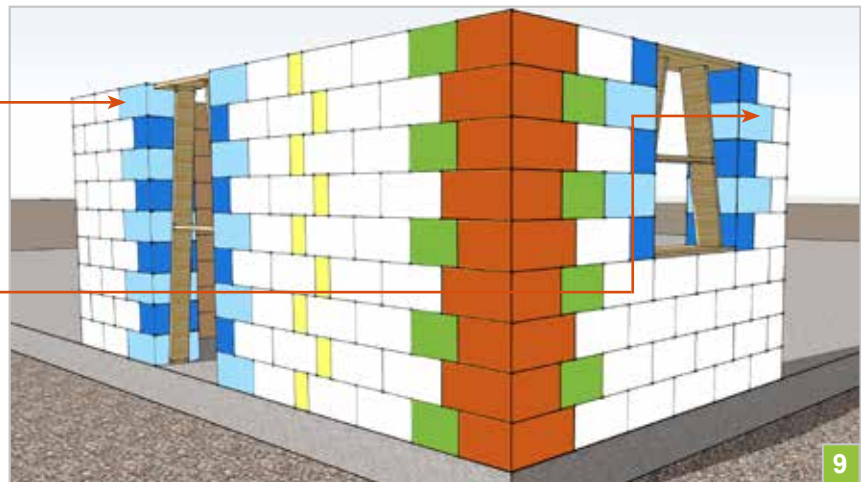
## CORRECT LAYING OF CORREA BLOCK FOR FLOOR SLABS LAYING

The door and window frames are formed by alternating SHOULDER blocks while laying the blocks. Door and window lintels are made by cutting the SHOULDER blocks at the yard (of 30 and 38 cm) or

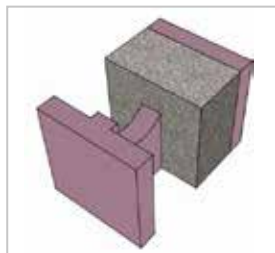
the laying of 44 cm blocks. In this manner, thermal bridges are eliminated. The lintel reinforcement must be indicated by the structure designer.



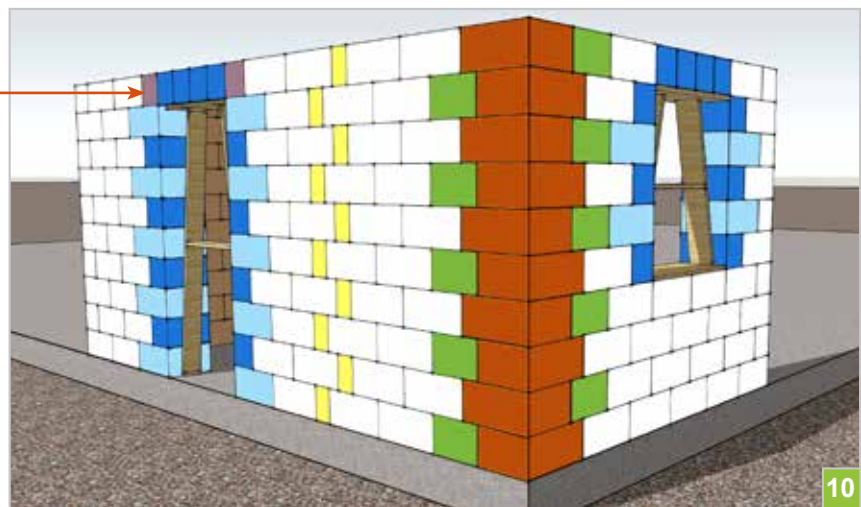
Shoulder Block



9



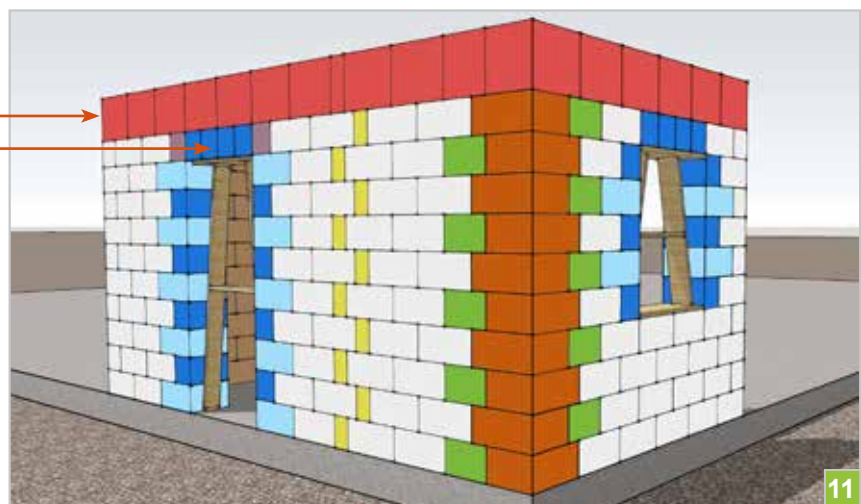
Half NS Block to be cut on building site



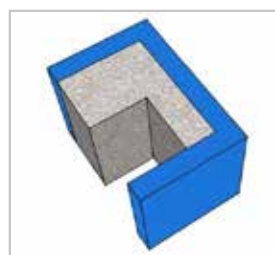
10



Correa Block

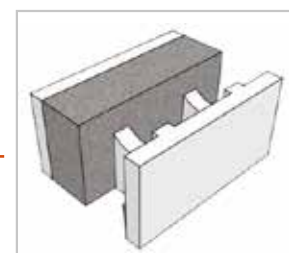
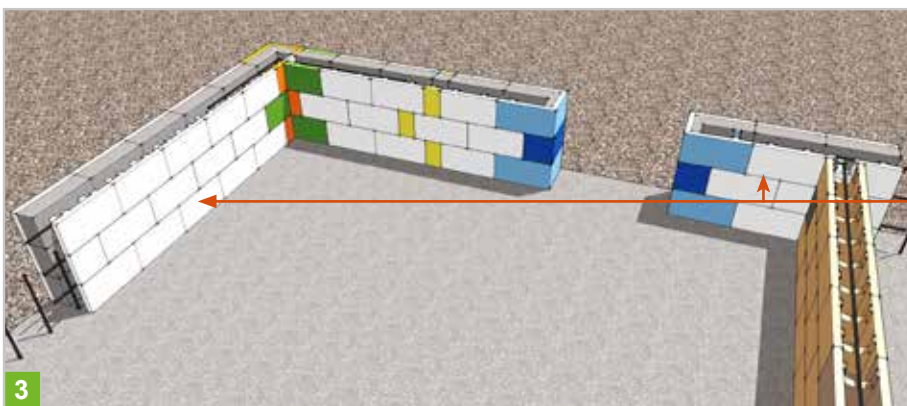
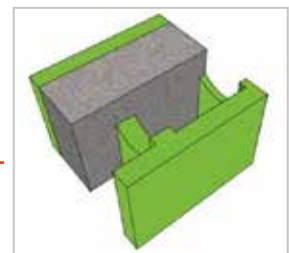
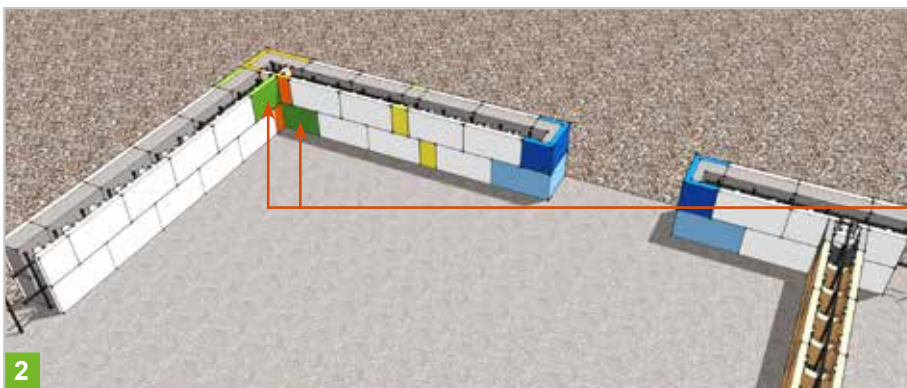
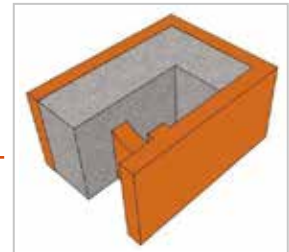
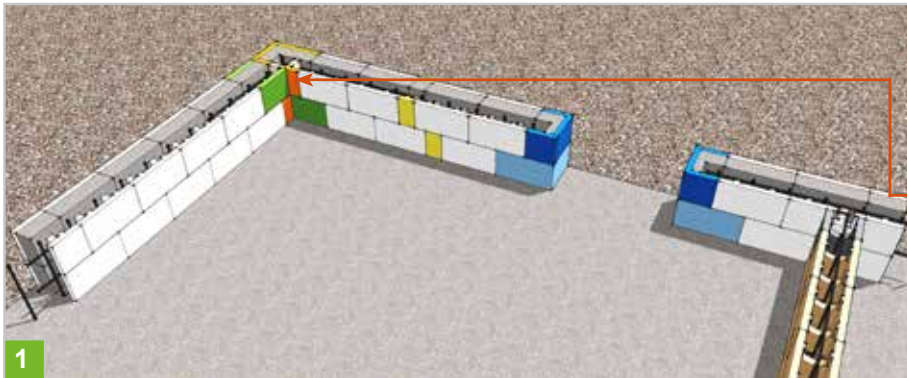


11



Half shoulder Block to be cut on building site

# CORRECT LAYING OF SUBSEQUENT COURSES (INTERNAL VIEW)

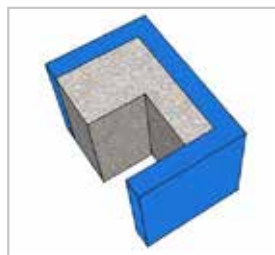
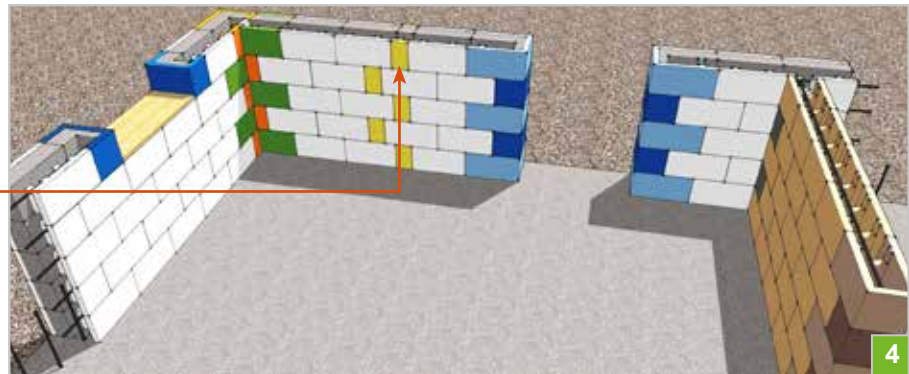




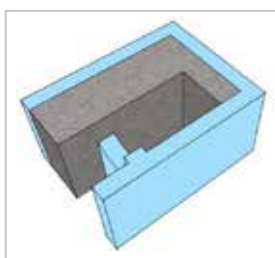
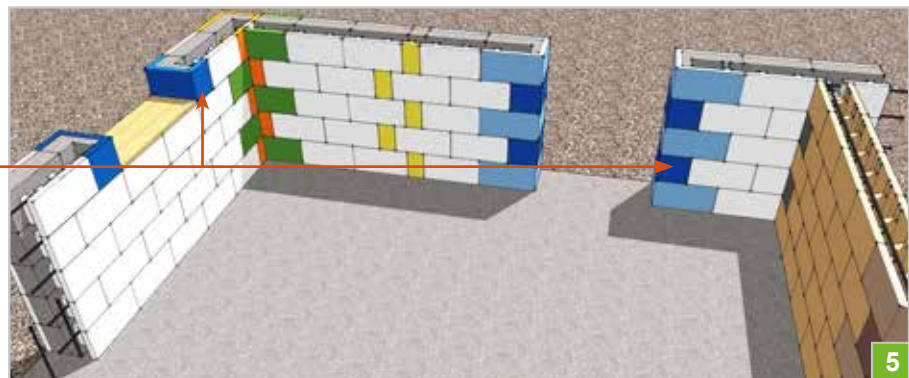
## CORRECT LAYING OF SUBSEQUENT COURSES (INTERNAL VIEW)



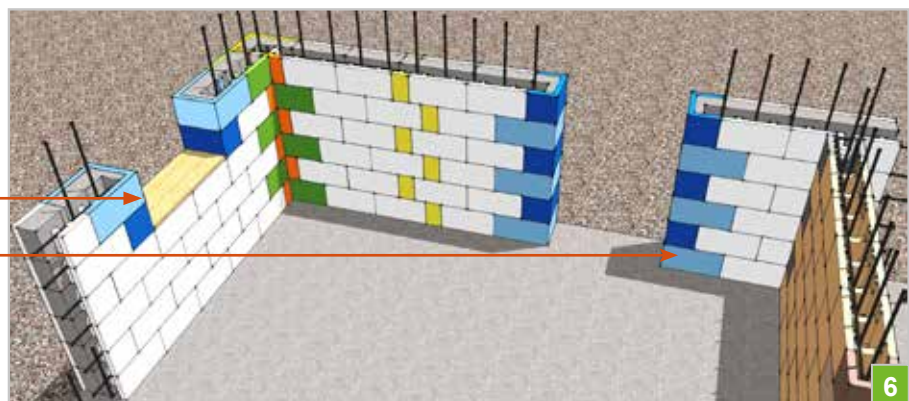
NS Block to be cut to correct size on building site



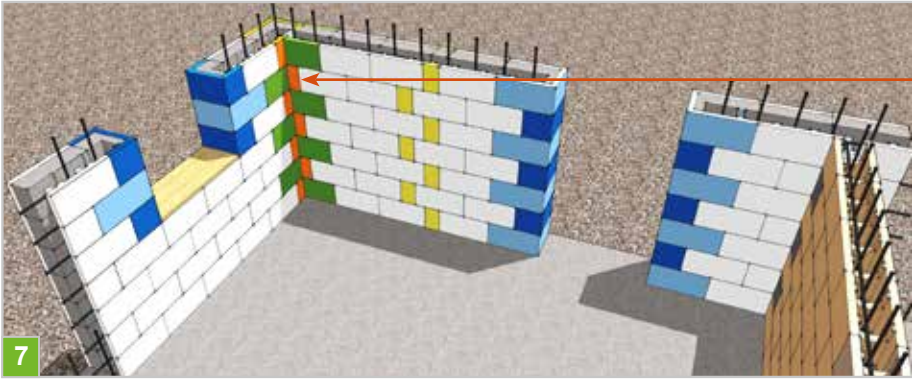
Half shoulder Block to be cut on building site



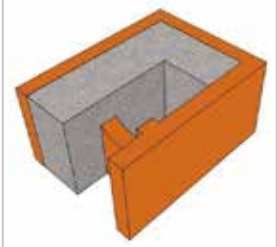
Shoulder Block



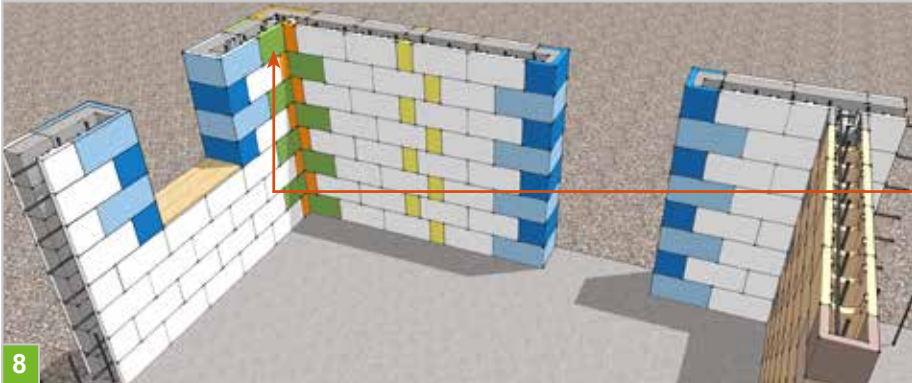
# CORRECT LAYING OF SUBSEQUENT COURSES WITH OPENINGS (INTERNAL VIEW)



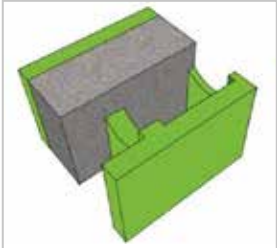
7



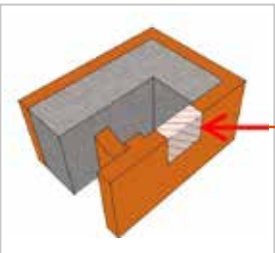
UNI Block (Corner)



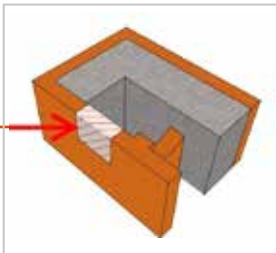
8



PASS Block



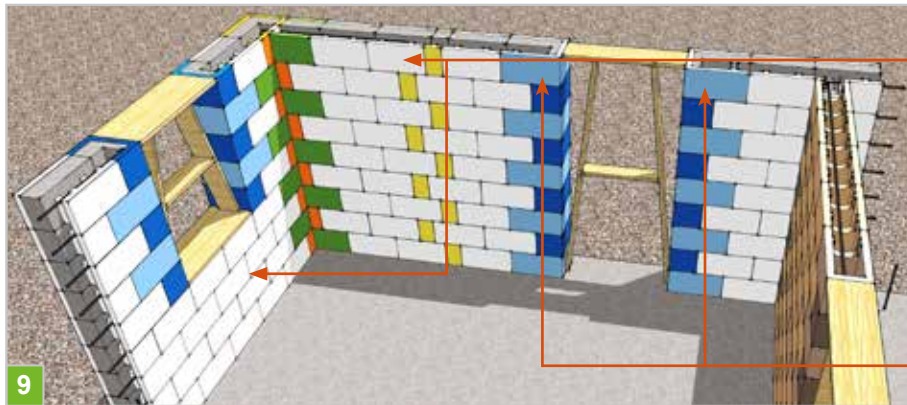
Course corners  
1-3-5-7-9



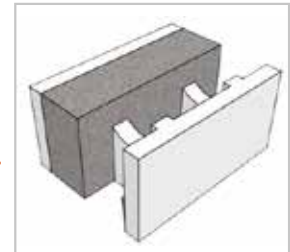
Course corners  
2-4-6-8-10

**CORNER BLOCKS:**  
the cutting of the lunettes is performed for the connection of the reinforcement steel bars and concrete

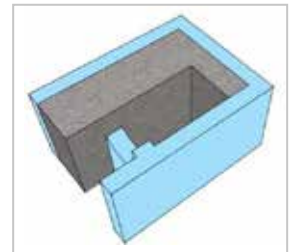
# CORRECT LAYING OF CORREA BLOCK AND LINTEL FOR DOORS AND WINDOWS (INTERNAL VIEW)



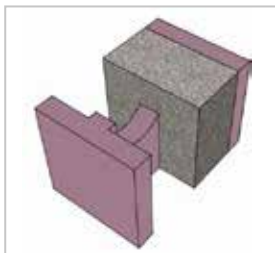
9



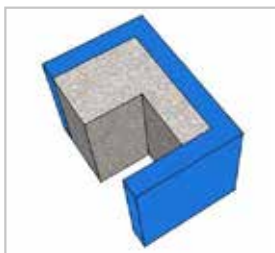
NS Block (Standard)



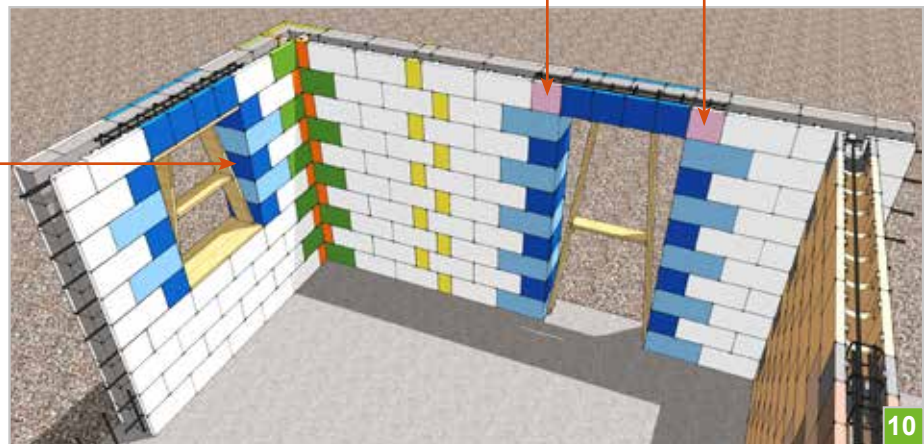
Shoulder Block



Half NS Block to be cut on building site



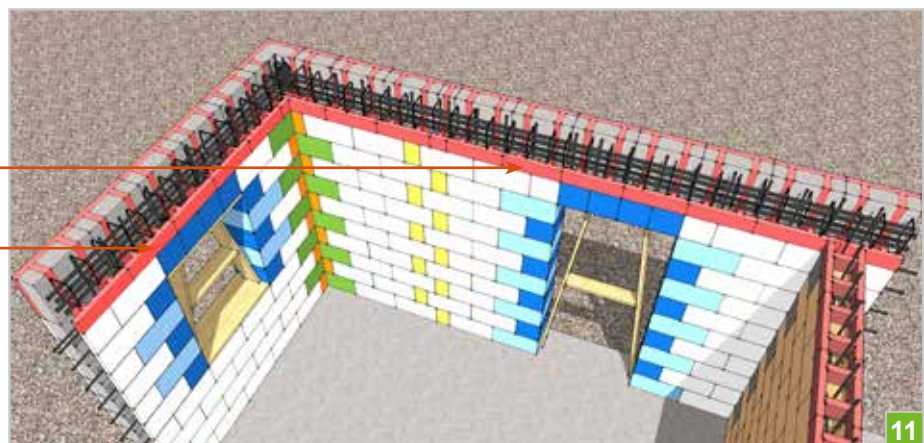
Half shoulder Block to be cut on building site



10



CORREA Block

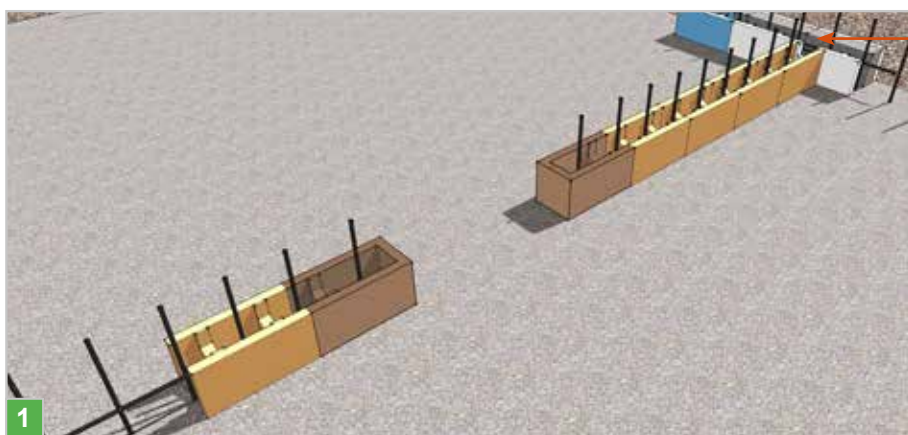


11

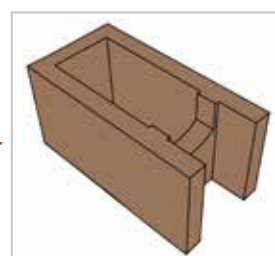
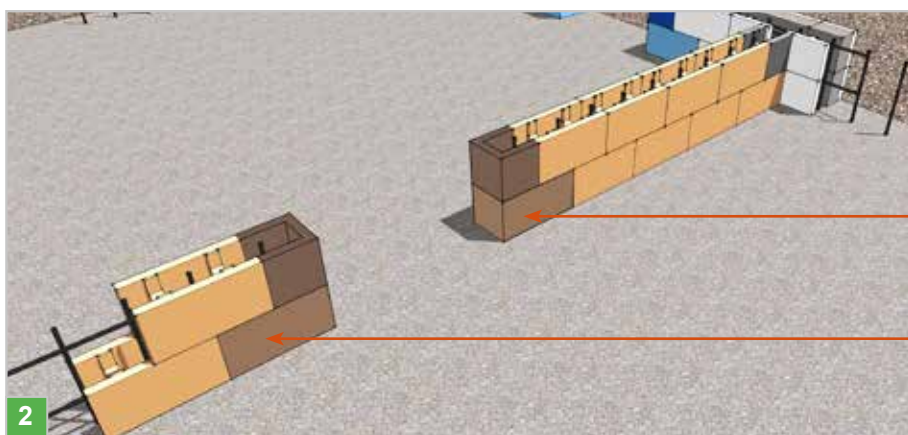
# INTERNAL WALL: 3-4 WAY JUNCTION

For making three or four way nodes, proceed with laying the internal wall, arriving at abutting the external wall, creating an aperture at the point of contact with that external wall to permit

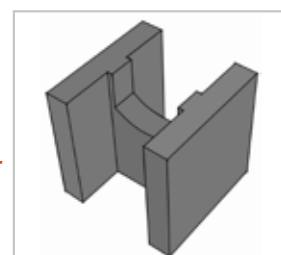
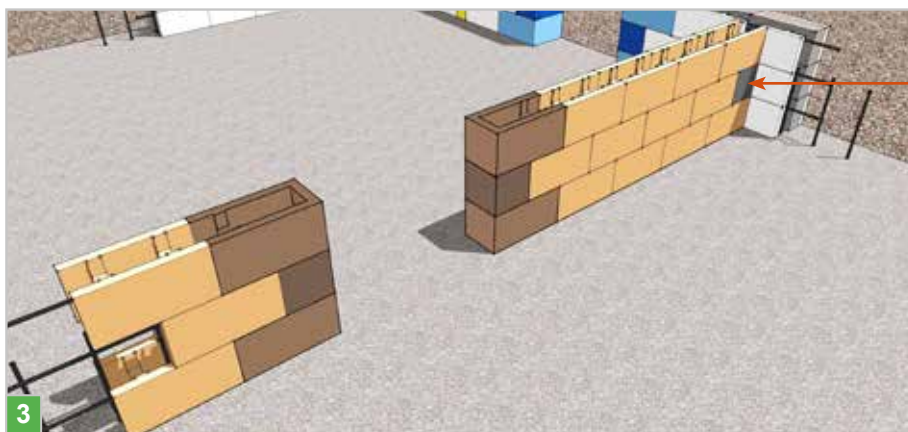
the lodging and connection of the horizontal reinforcement and the concrete.



3-4 way junction



UNI Block for internal walls

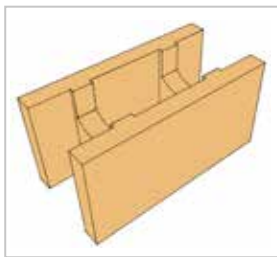


Half NS Block to be cut on building site

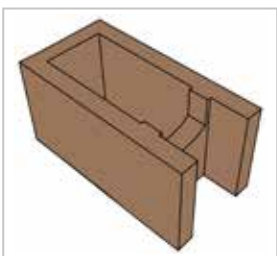
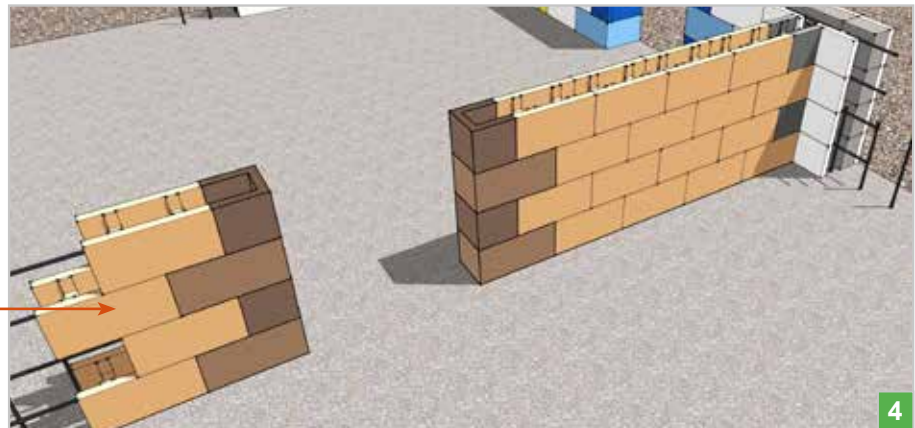
## INTERNAL WALL: SHOULDER REALIZATION

To be avoided on the other hand, as is otherwise usual with traditional blocks, are the “ties” because, with the ISOTEX system, connection be-

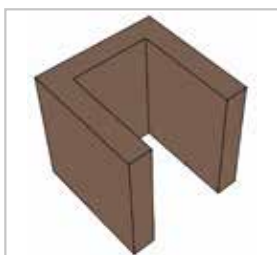
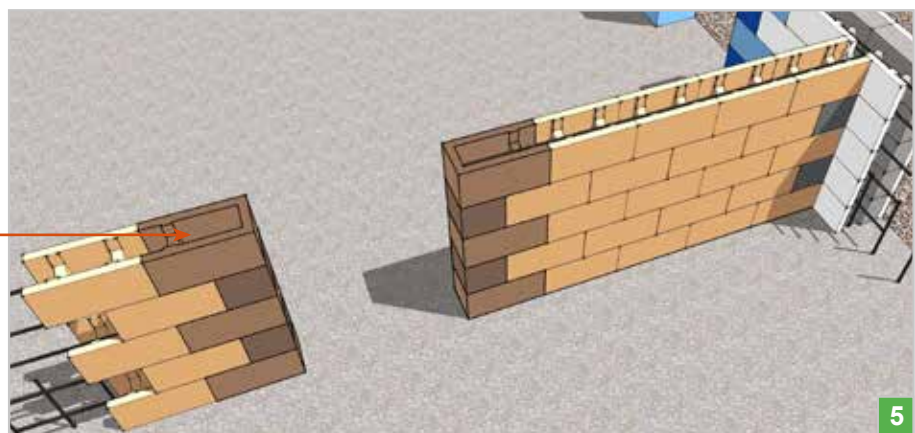
tween the three or four way nodes is made with the steel reinforcement and the concrete.



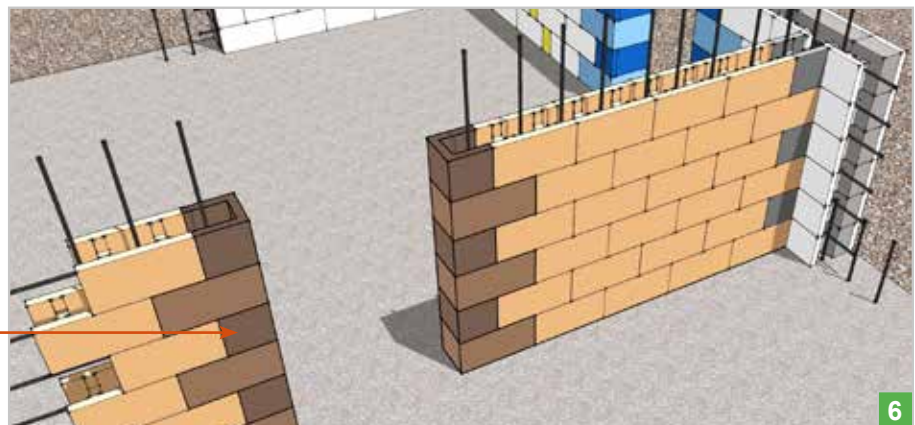
**NS Block for internal walls**



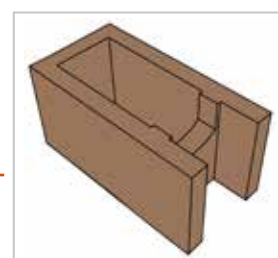
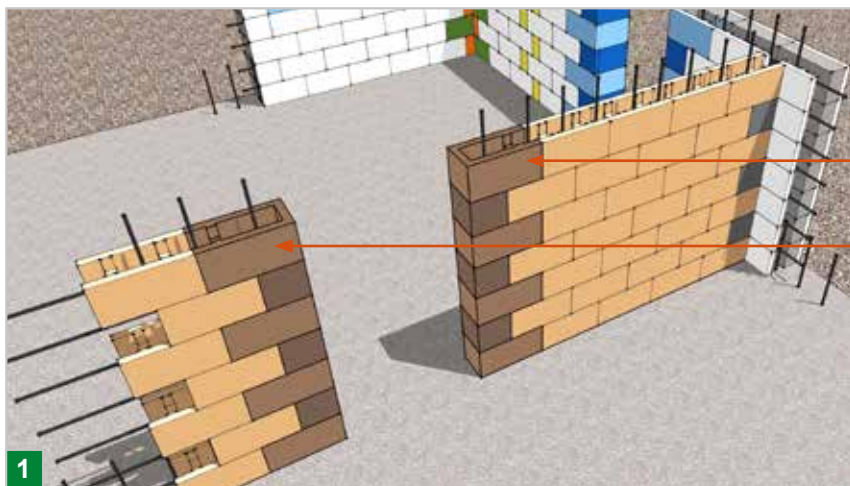
**UNI Block for internal walls**



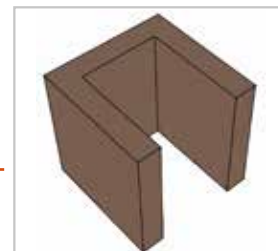
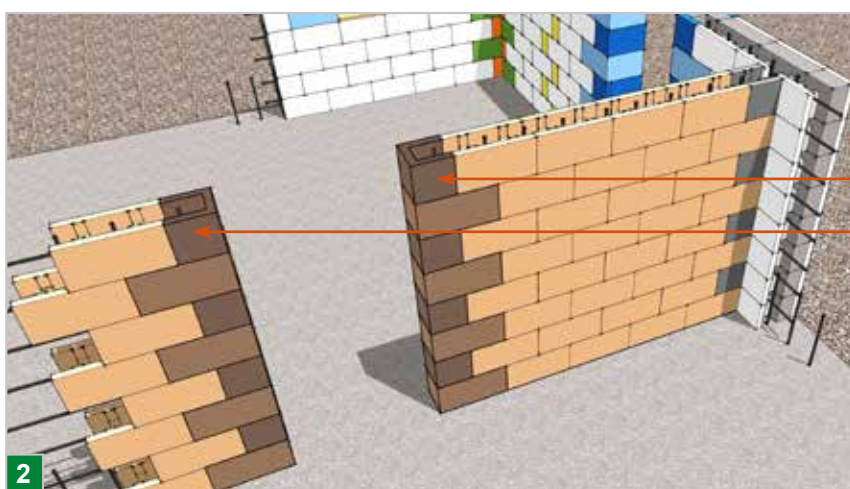
**Half UNI Block to be cut on building site**



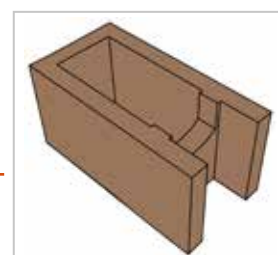
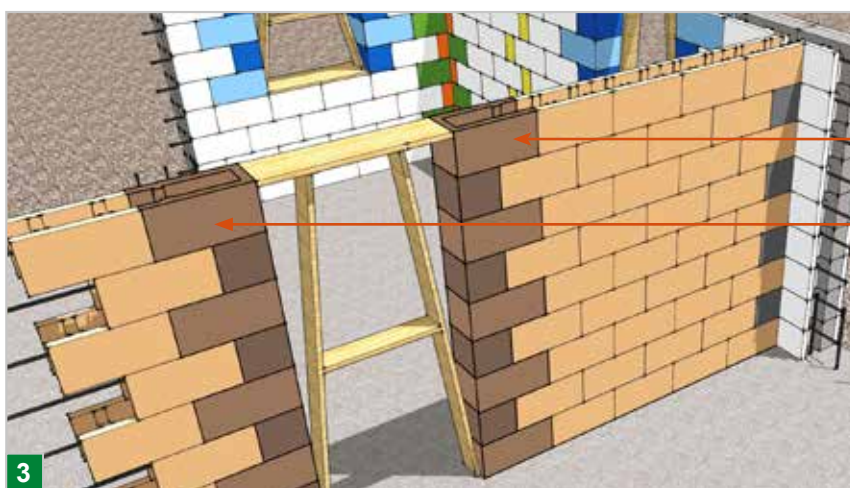
# LINTELS, SHOULDERS AND INTERNAL WALLS



UNI Block for internal walls

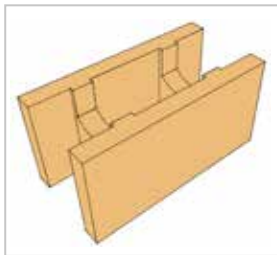


Half Block to be cut on building site

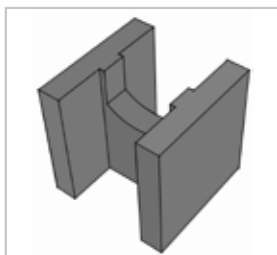


UNI Block for internal walls

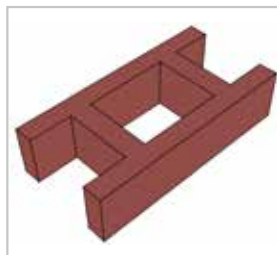
# LINTELS, INTERNAL WALLS, WINDOW FRAMES AND BLOCKS TO REACH THE FLOOR



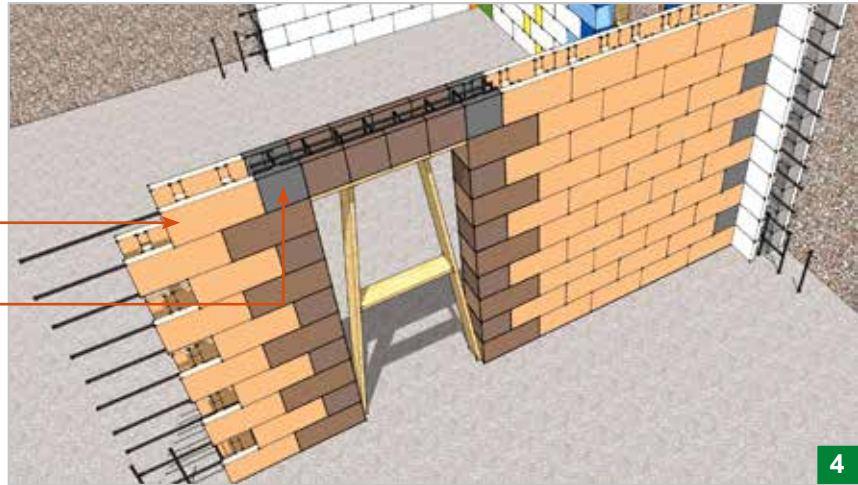
**NS Block for internal walls**



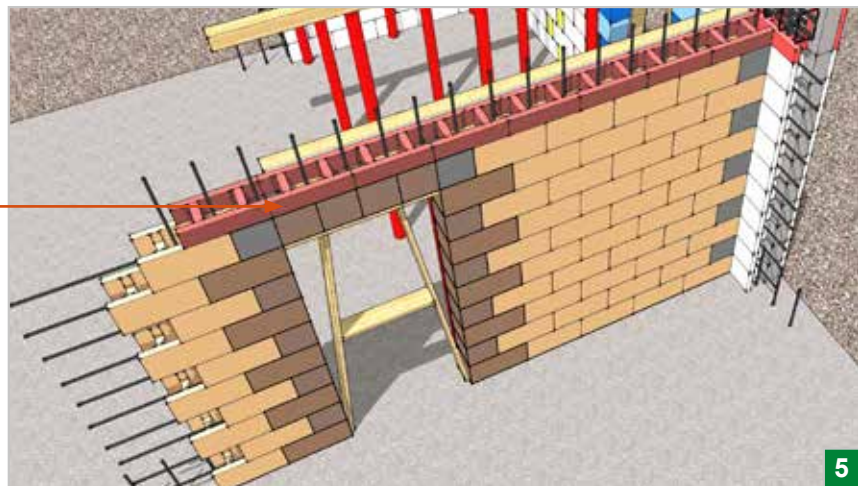
**Half NS Block to be cut on building site**



**Block to reach the correct dimension of ceiling**



4

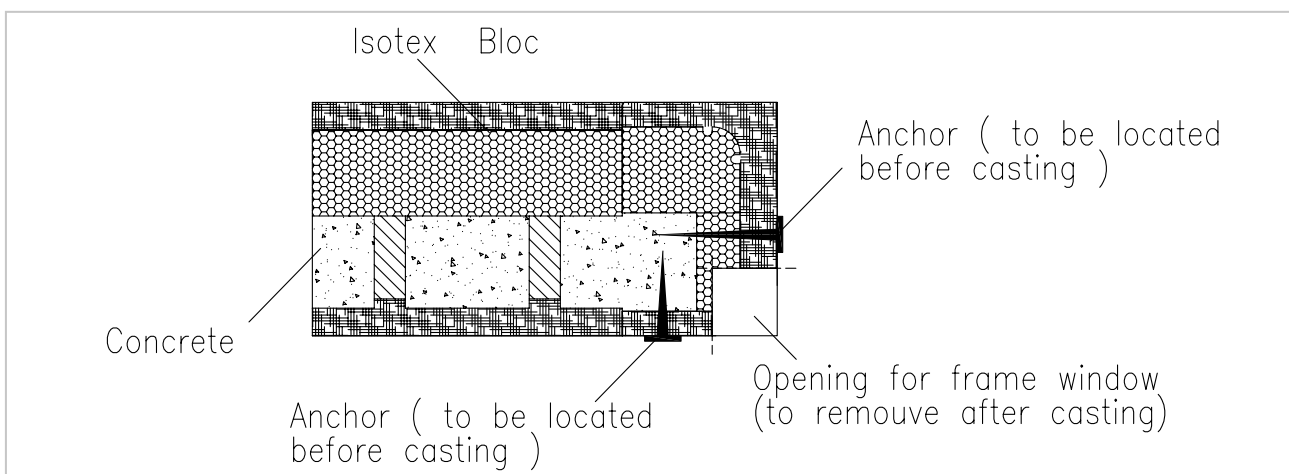


5

## BLOCK CUTTING FOR REBATES

When rebates are required, these can be cut into the SHOULDER blocks after pouring the concrete. Plastic anchors must nevertheless be inserted (as in the diagram) before the pour in

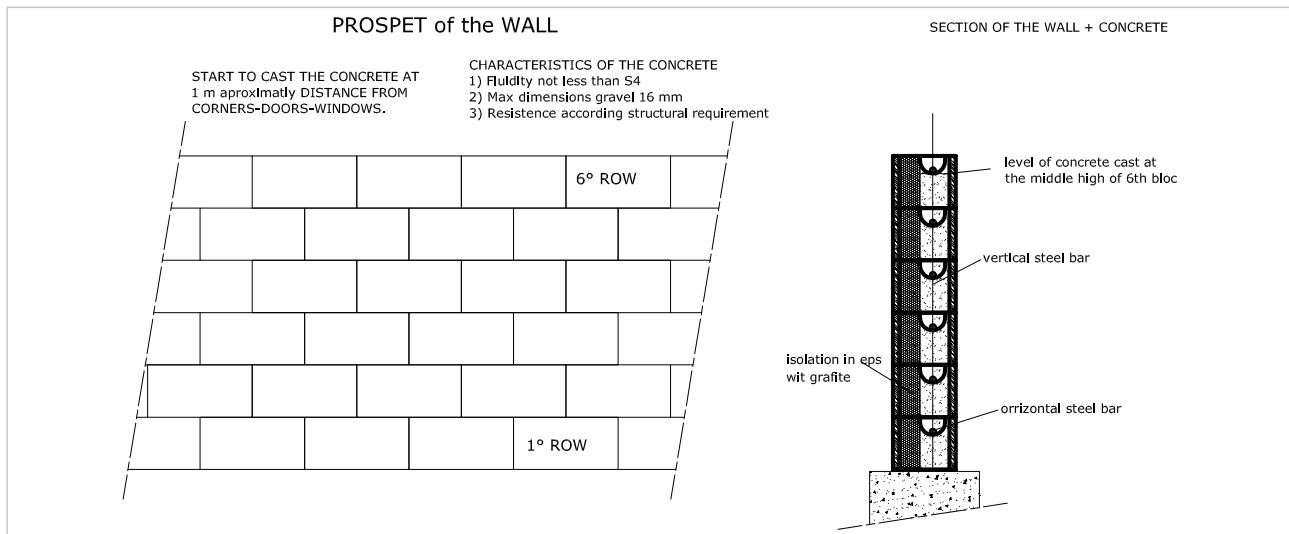
order to avoid possible detachments while cutting. Proceed in the same manner for rebates in the lintels above doors and windows.



# PROCEDURE FOR POURING THE CONCRETE

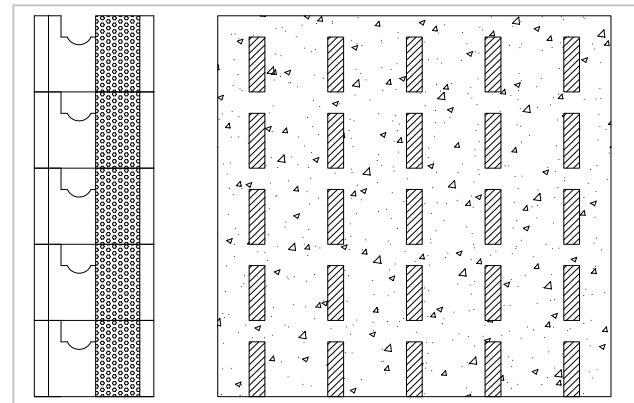
Having reached a height of 6 courses, equivalent to 1.5 m, complete refilling of the walls with concrete is carried out, possibly by bucket or pump, taking care not to apply excessive pressure which might shift the alignment of the blocks. The concrete must

have a class of consistency (fluidity) of not less than S4 with a class of resistance taken from the calculated requirements and the granulometry of the aggregates (<16 mm), in order to ensure a complete filling of the blocks.



It is essential to start filling the perimeter walls with concrete at a distance of approximately one metre from the corners as well as the door and window shoulders, in order that the concrete, passing from the block lunettes, applies a lesser pressure and thereby does not shift the blocks. Having completed the perimeter walls, the internal walls are then filled.

At the first pouring of the 6 courses, it is very important to keep the concrete level at mid-level of the sixth course. Subsequently, insert the vertical reinforcement to a height of 2 m, inserting it at the centre of the pillar at the same time as the pour (see the photograph on page 11), and vibrate this last with a small bodkin to ensure filling the walls.

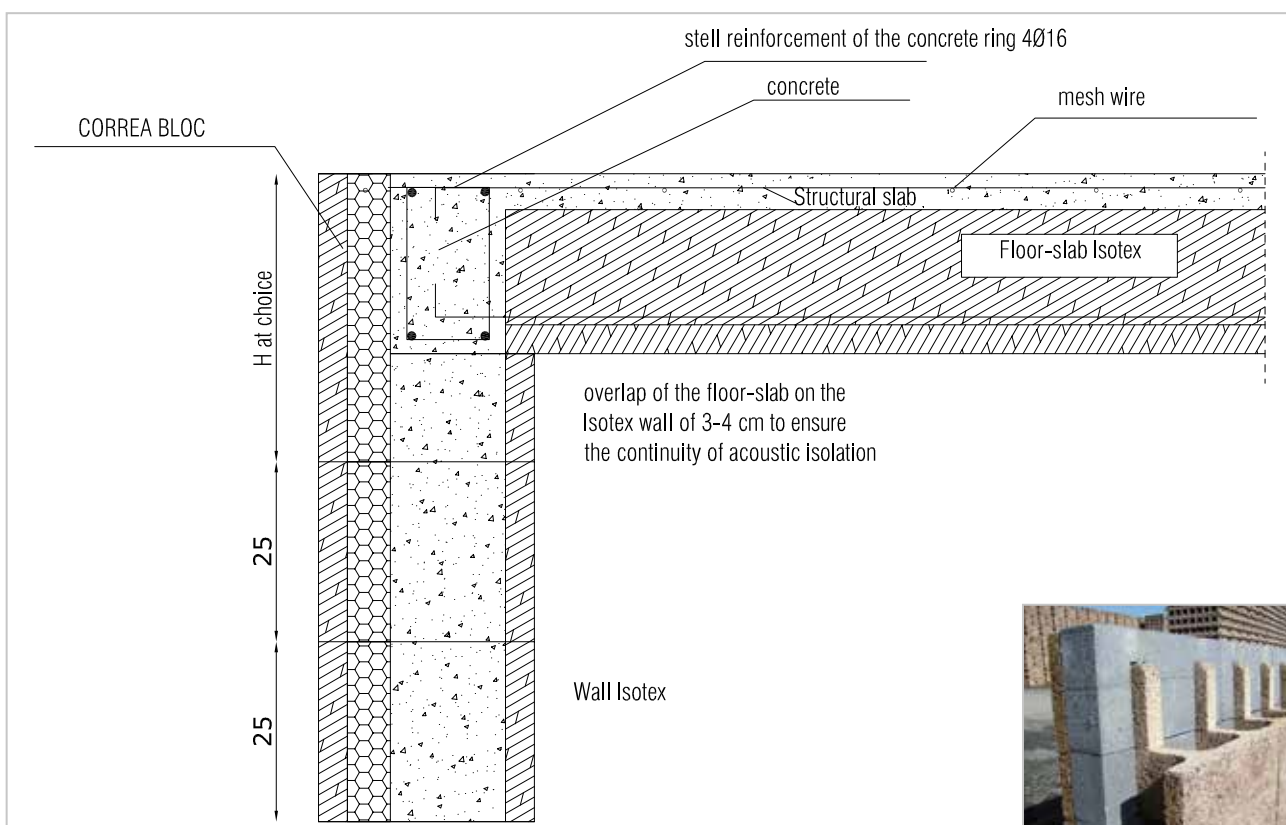
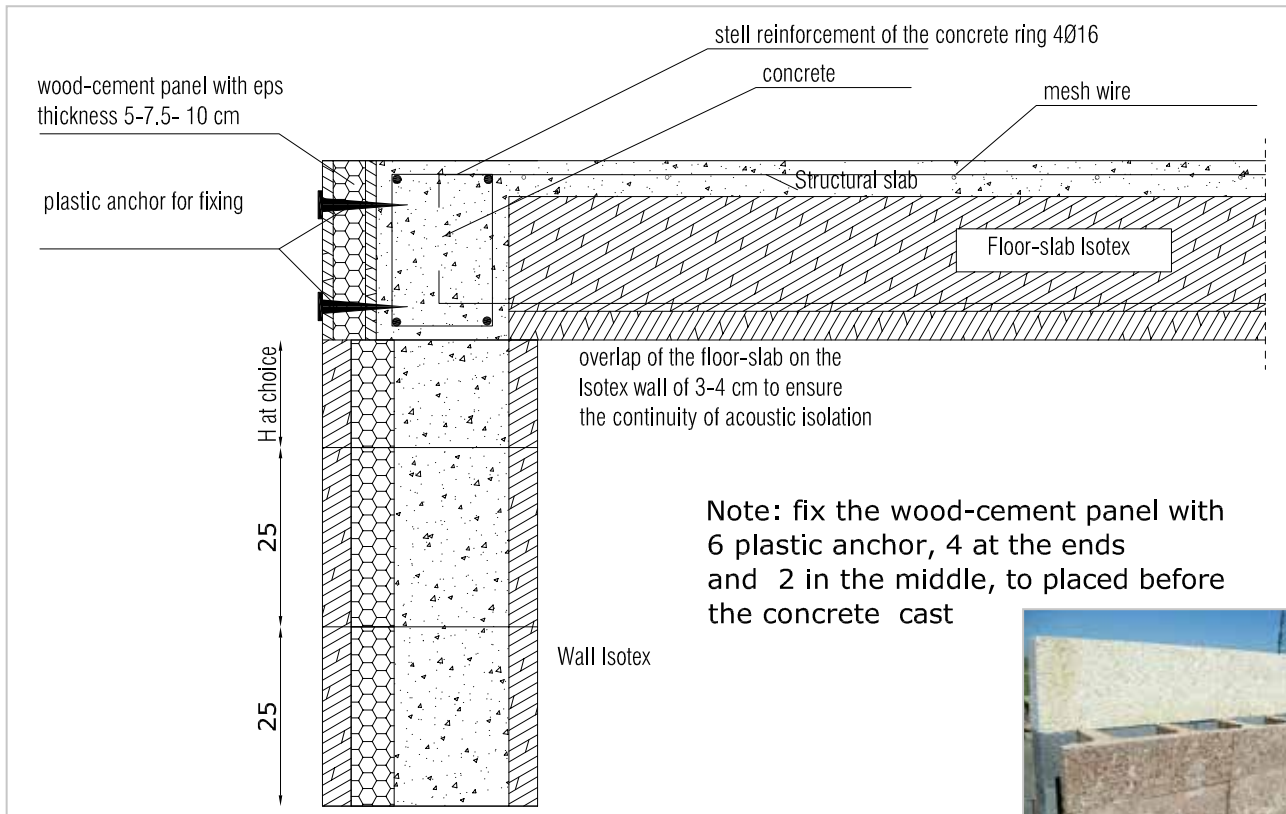


Distribution of the concrete within the blocks.



# ELIMINATION OF THERMAL BRIDGES

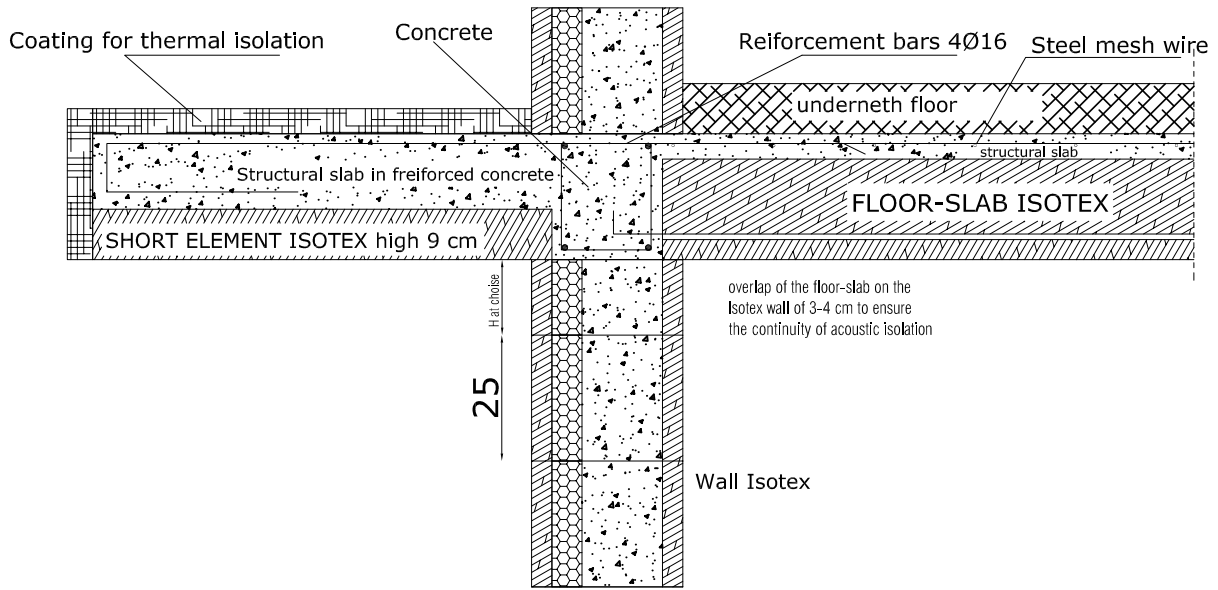
## Floor panel beam detail



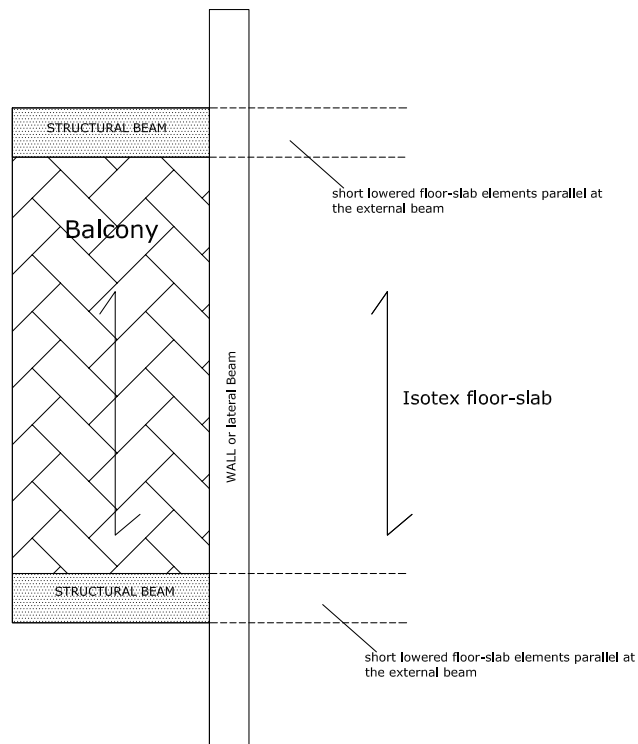
# ELIMINATION OF THERMAL BRIDGES

## Balcony detail

1) shelft Balcony with short elements Isotex



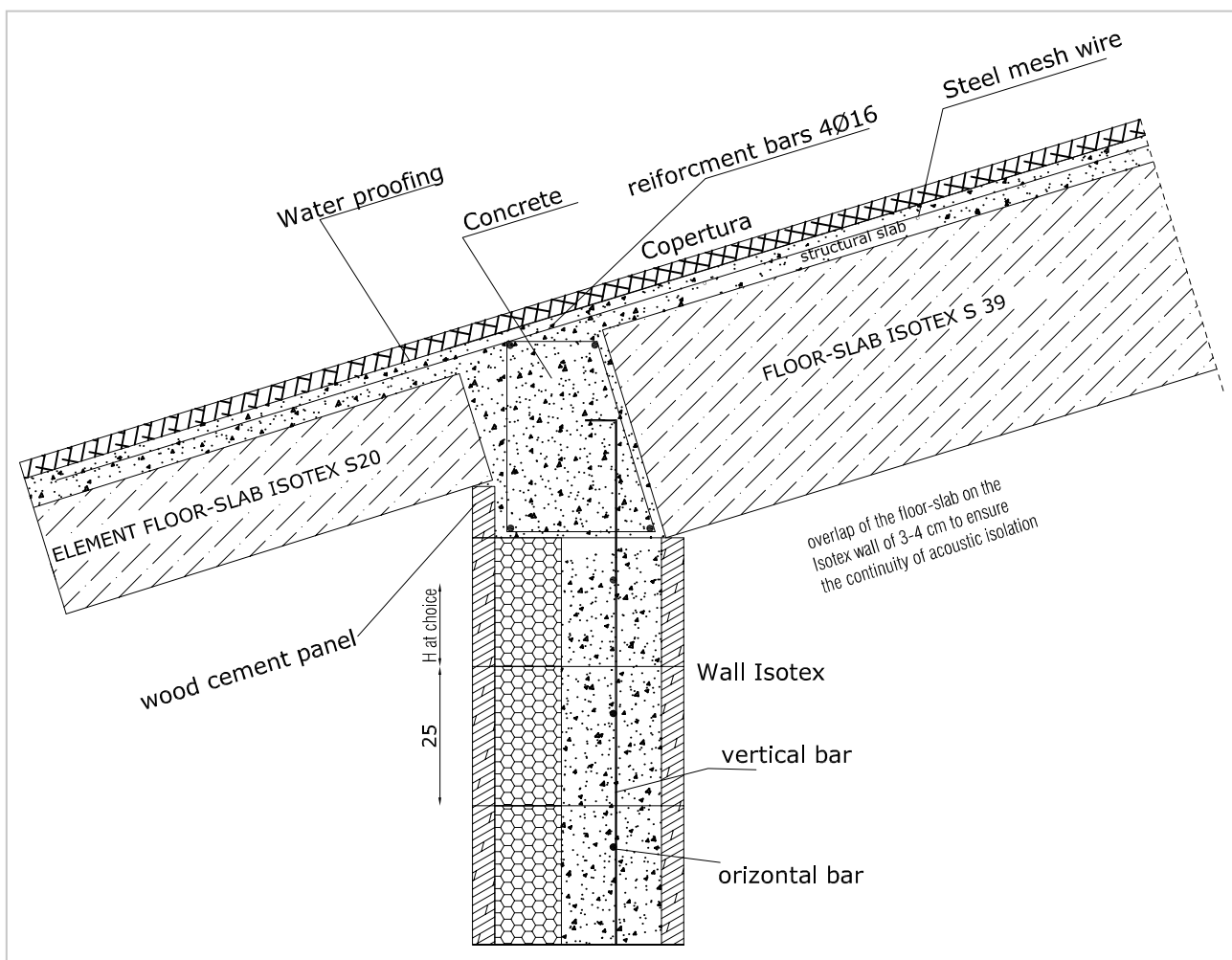
2) Balcony on structural beam, not shelft



# ELIMINATION OF THERMAL BRIDGES

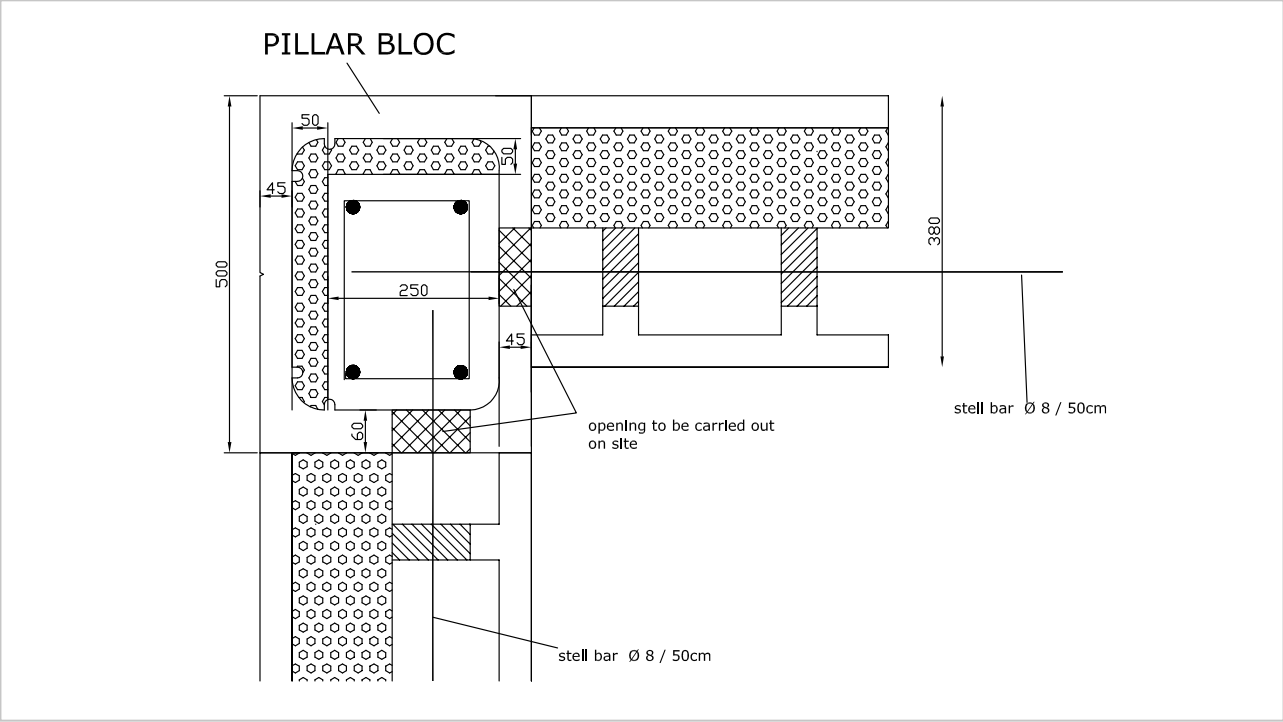
## *Proposals for eaves*

ISOTEX makes available detailed documentation for the solution to these and other thermal bridges present in the structure of the building.

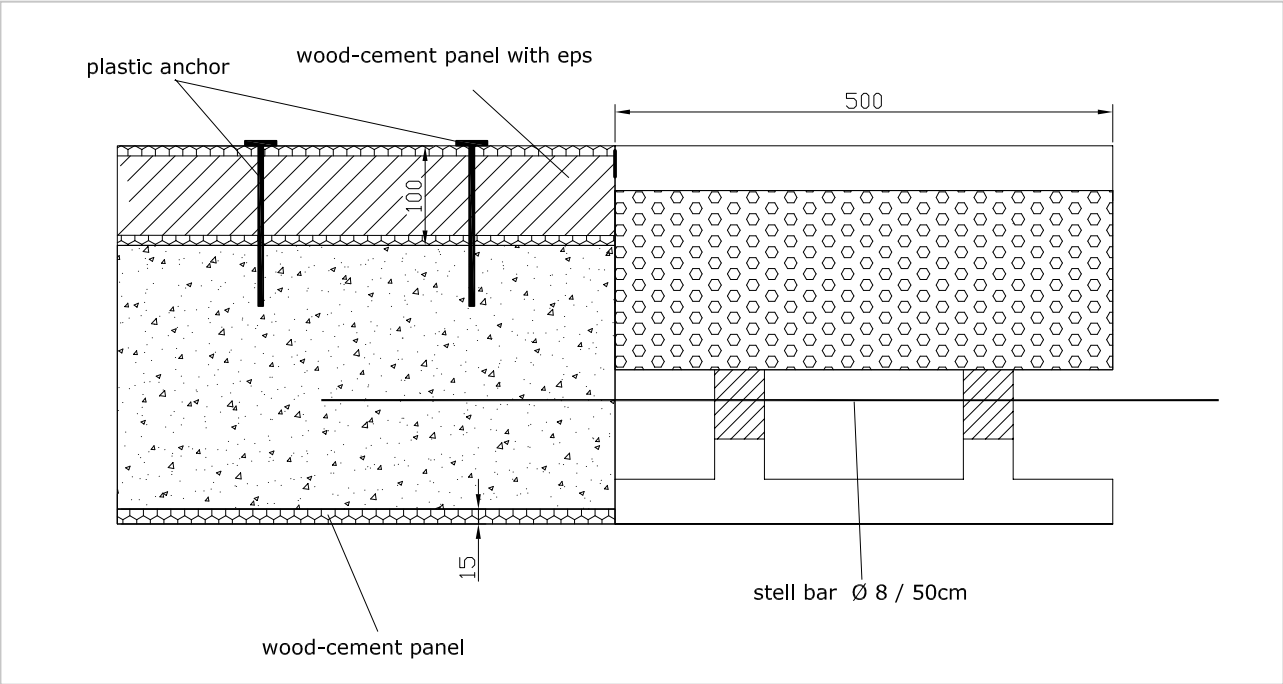


# ELIMINATION OF THERMAL BRIDGES

## Attachment to pillar blocks



## Attachment to traditional pillars

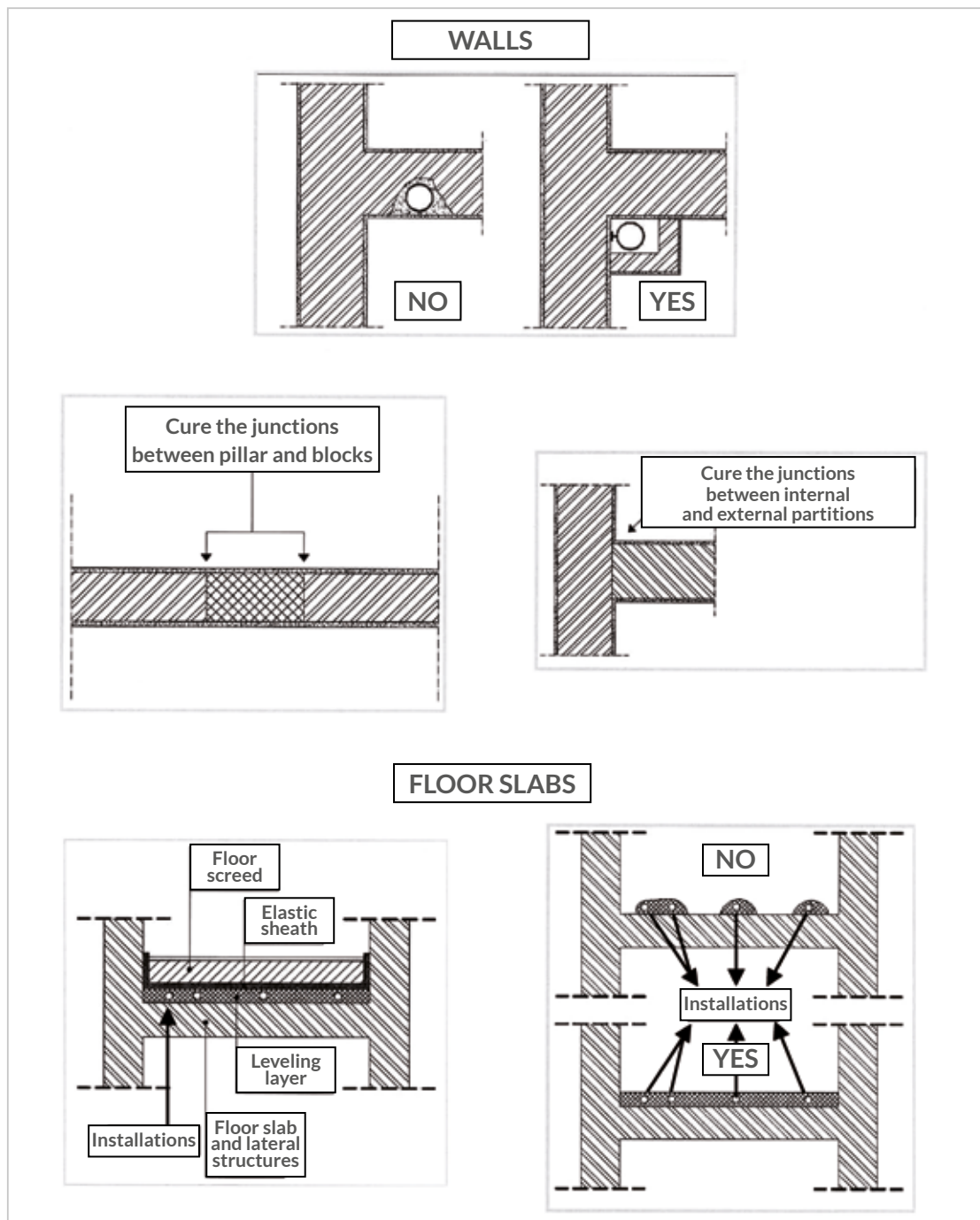


# OPTIMIZATION OF ACOUSTIC PERFORMANCE

## *Construction details to be complied with*

It is important to use construction materials whose certification comes within the values of regulations and correct building procedures.

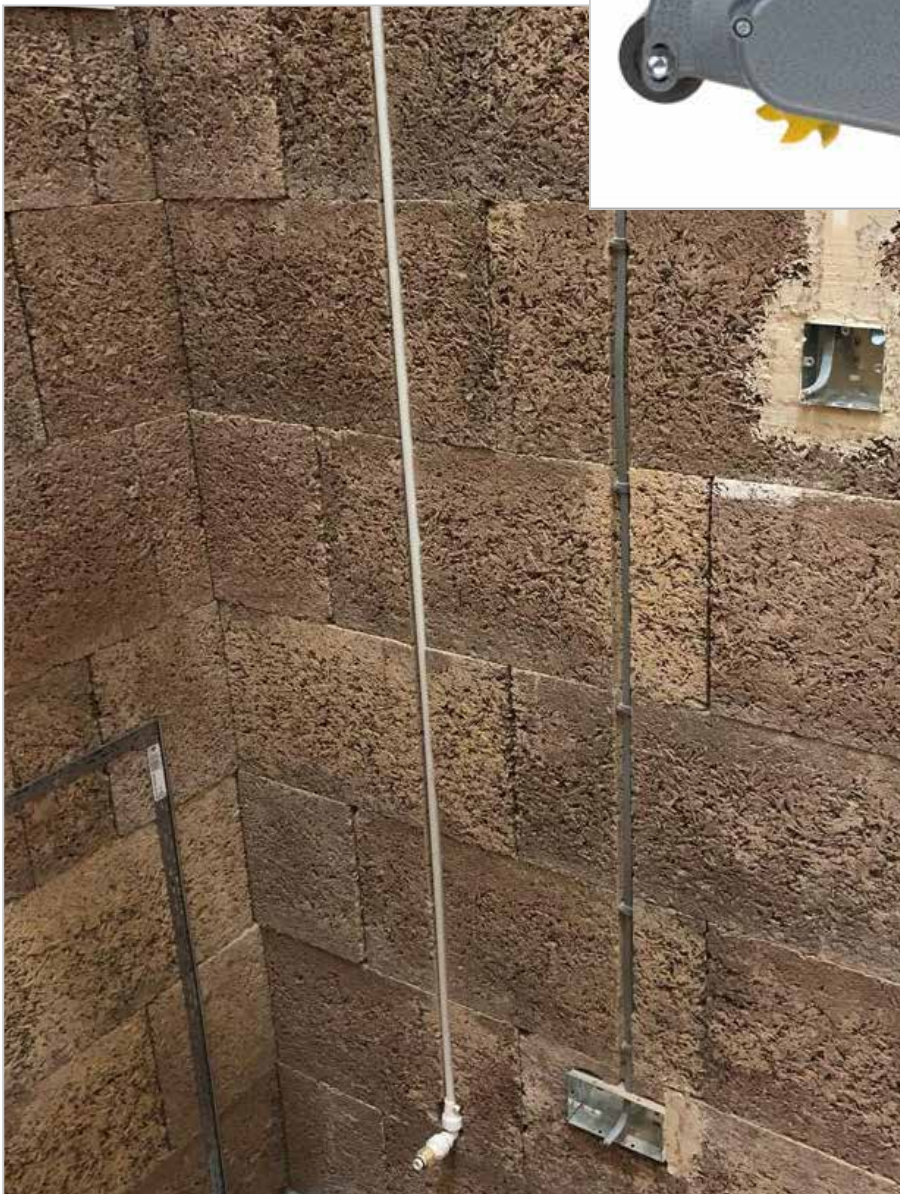
To avoid incurring problems with the purchaser (there are thousands of them), it is important to use construction materials whose certification fall within the values of regulations and correct building procedures.



# HOW TO MAKE CHANNELS IN ISOTEX WALLS

In order to make channels for plant, it is advised that, over the 4-5 cm of wood chip cement, a wall chaser is used which allows for adjusting the

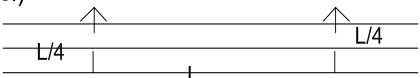
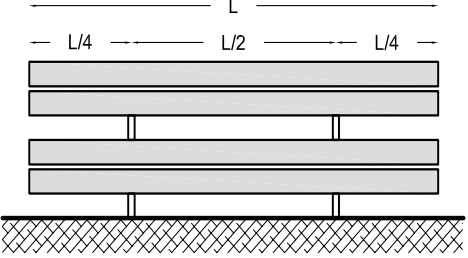
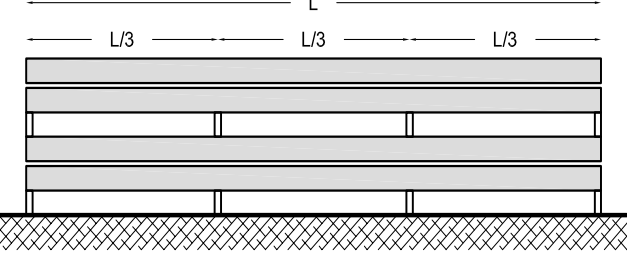
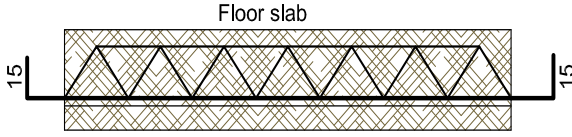
width and depth in order to obtain the required dimensions rapidly and precisely.





# EXAMPLE OF ASSEMBLY SCHEME FOR ISOTEX FLOOR

## Example of assembly scheme

Laying Method for floor-planks	storage methods on work site
<p>1) Positions where to lift the panels as in the picture ( are marked red on the panel)</p>  <p>2) Start the pose of a zone respecting the numbers and starting from number 1,2 3,... ( Dont reverse the panel according to the position of the numbers on the drawing)</p>	<p>Per <math>L &lt; 5m</math></p> 
<p>Prescriptions in charge of the Executing Company on job site</p>	<p>Per <math>L &gt; 5m</math></p> 
<ol style="list-style-type: none"> <li>1) Beton- Concrete C25/30</li> <li>2) Steel B500B .</li> <li>3) Collaborating compression slab <math>h=5</math> cm</li> <li>4) Integration steel bars at upper for each beam ( 3 beams per meter) to pose 2 cm under the top of the finished slab over the wire mesh.</li> <li>5) In the collaborating compression slab collocate wire mesh diam. 8mm/20x20, to overlap only in the middle of the lenght of the panel and never at the ends of the panel .</li> <li>6) Elements for the support of the panels every 1,5 m maximum.</li> <li>7) precamber of 1 cm for panels lenght of 4-5 m, of 2 cm for panels lenght of 6 m</li> <li>8) Not included in the supply: <ul style="list-style-type: none"> <li>- Steel bars for upper positionig;</li> <li>- Wire steel mesh according to law codes;</li> <li>- Steel bars for transverse ripartition beams.</li> </ul> </li> <li>9) Isotex reccomende, to improve the thermal-acoustic isolationton to overlap the panels of 3-4 cm on the Isotex walls.</li> </ol>	 <p style="text-align: center;">Floor slab</p> <p>Note= the carrying out of the works is subject at the approval of this drawing for the Structural Engineer of the building and of the Executing Company . It is in charge at the Structural Engineer of the building to indicate the reinforcement steel bars of balcony and cantilever slabs.</p>
<p><b>ISOTEX S.R.L.</b></p> <p>42028 POVIGLIO (RE) - VIA D'ESTE N.5/7          TEL. 0522/965555 Fax 0522/965500          e-mail: info@blocchisisotex.it</p>	



## ISOTEX FLOOR SLABS RANGE



*Floor slab S20*



*Floor slab S25*



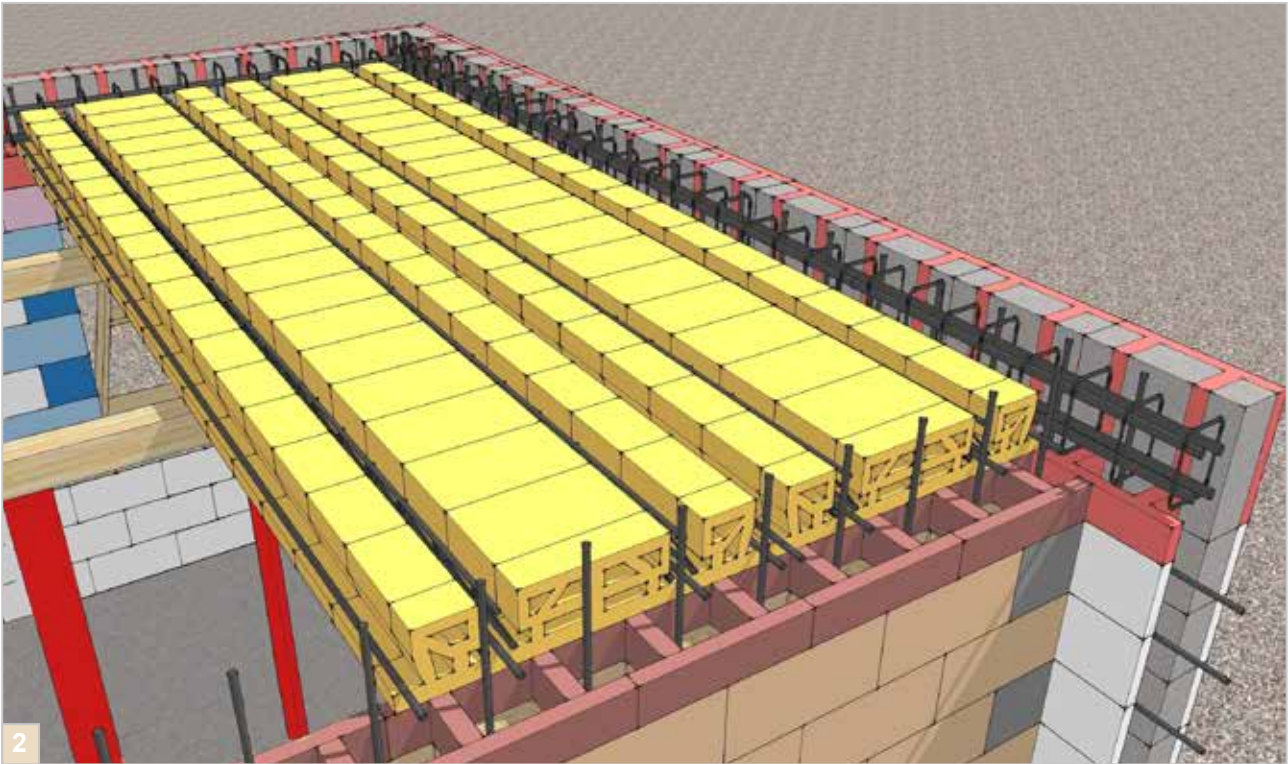
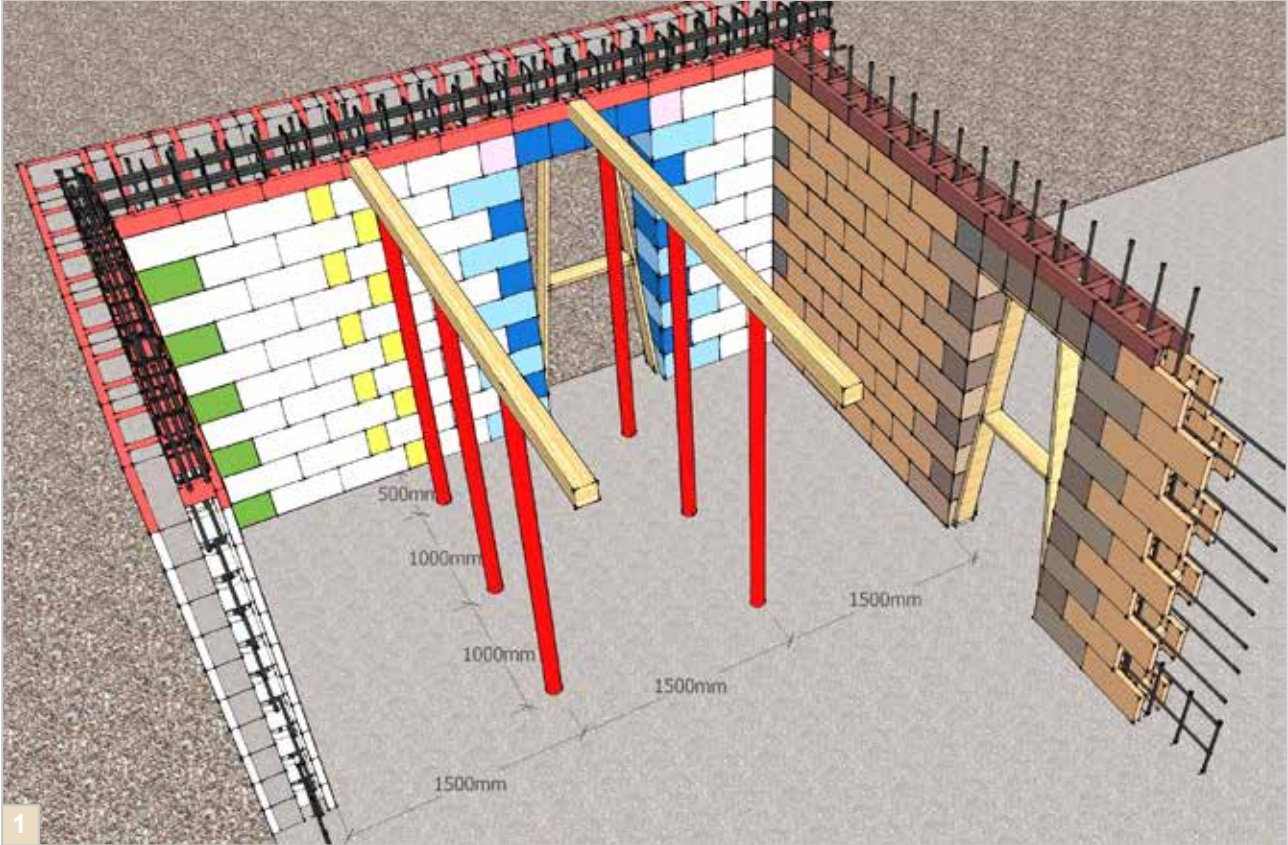
*Floor slab S30*



*Floor slab S39*



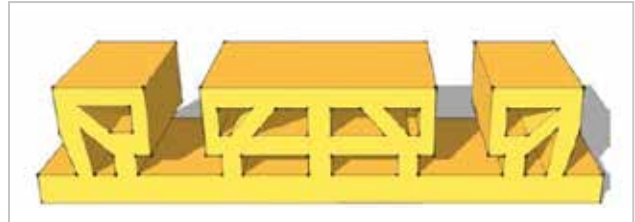
# CORRECT LAYING OF ISOTEX FLOOR SLABS



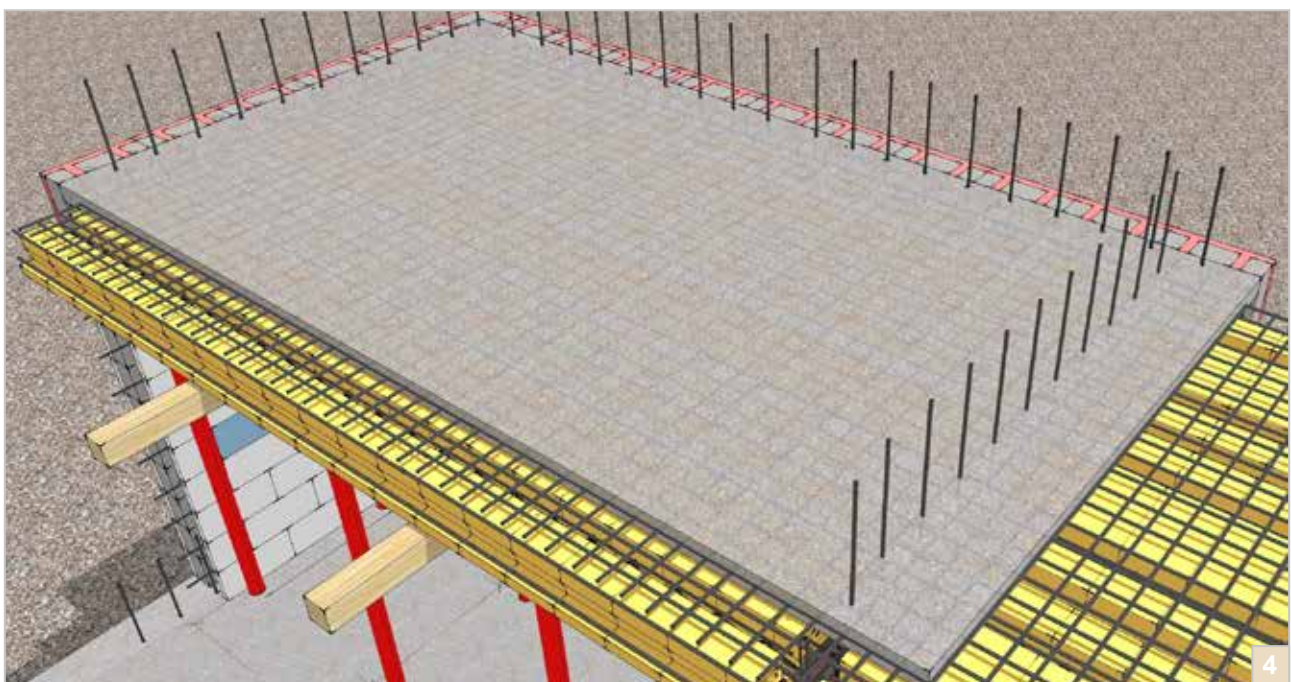
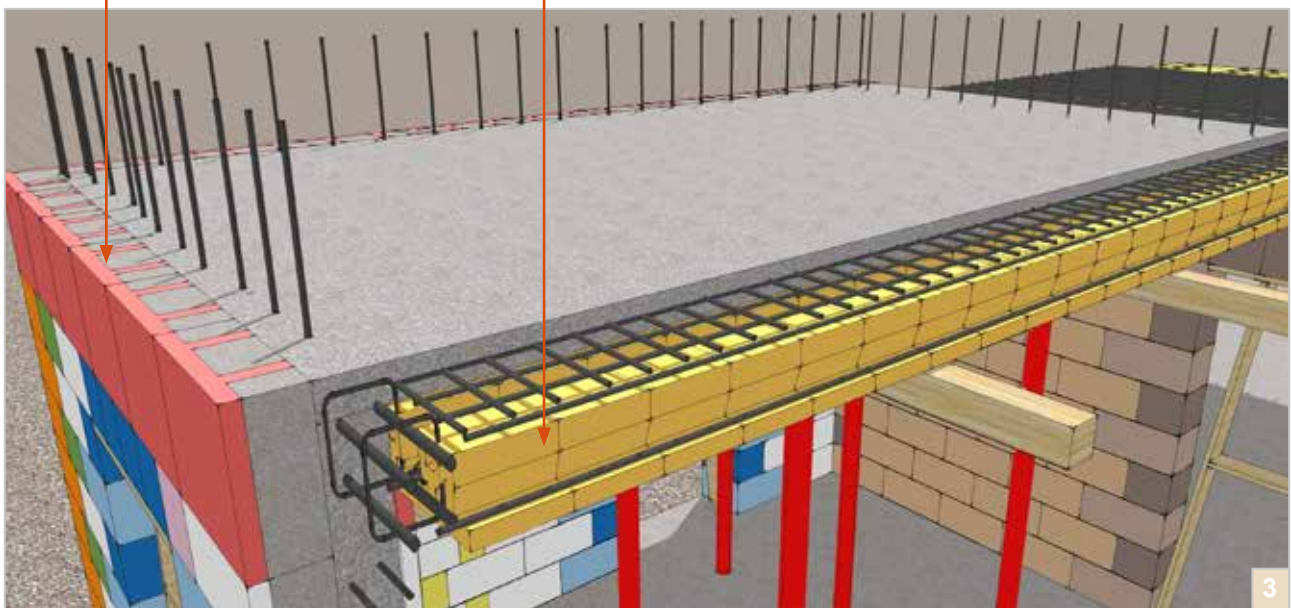
# CORRECT LAYING OF ISOTEX FLOOR SLABS



Correa block



Floor slab S25



# RECOMMENDATION FOR CORRECT APPLICATION OF PLASTERS AND COLOURED FINISHES

The application of the plaster must be performed only on dry surfaces. Avoid, therefore, application on walling wet from rain, frozen or with unset concrete. Do not apply the plaster with temperatures less than 4°C as this can delay significantly the hardening of the plaster and, consequently, the application of finishings.

The week before applying plaster, close any gaps caused by incorrect laying with mortar in order to avoid notable thicknesses of plaster which might result in areas of crazing. The walls should be adequately levelled and squared during installation as the application of thicknesses of plaster to straighten and square off walling is inconceivable and ineffective.

A thicknesses of plaster greater of 2 cm may lead to the formation of cracks and crazing. Where it is necessary to apply plaster thicker than 2 cm, it is essential that it is applied in two coats separated by at least 28 days.

With these important premises, the plaster can be applied, pre-mixed or traditionally prepared, considering the fact that it must protect the walling from weather and wear and that its thickness must be as uniform as possible at 15 mm, bearing in mind that a greater or lesser thickness can facilitate the formation of cracks. Over the last few years, insulation is becoming ever more efficient which makes it all the more important to consider inserting a suitable netting, in alkali-resistant fibre glass with CE marking, positioned half way through the plaster; that being 7-8 mm from the support. Finishings (e.g. fine mortar or other) should always be applied after a coat of adhesive of hardened plaster, generally at least 3-4 weeks



beforehand, depending on climatic conditions.

Isotex Srl does not recommend the use of this type of finish (for exteriors), which in order to work well must have a fully hardened base coat of about 15 mm so as to avoid the formation of shrinkage cracks, given the enormous difficulties in verifying that application and timing conditions are met. From the experience gained since 1995 on various construction sites and considering that in recent years structural blocks have improved heat performance thus subjecting the plaster to greater stress, the solution we suggest consists in applying directly on the plaster base coat (15mm), levelled during application, a thick coloured finish after 4-6 weeks, thus obviating the need for fine mortar or other.


When applying the base coat and leveling with a straight edge it is important to maintain a uniform and consistent covering to avoid chalking the surface. Isotex Srl can provide information on the characteristics of these products for external finishes and methods of application to ensure waterproofing yet breathability. For interiors, we recommend an interval of 4-5 days between plaster foundation and fine mortar (or other finish) to ensure a good and thorough maturation of the plaster before applying the mortar.

Consider the particularities of the S39 panelling, which for thermal reasons has joints but not concrete between the panels. In correspondence with these junctions micro-cracks may form and therefore, to avoid this, it is recommended to use a plasterboard finish. For intermediate floors (S20-S25-S30), if a plaster finish with a thickness of 15 mm (no less) is chosen, the recommendation is to “embed” half way through the thickness, a reinforcing net in alkali-resistant fibre with CE marking. Then wait 4/5 days, depending on the season, before applying the finish and 4/6 weeks before painting.

Please note that, Isotex Srl, due to the fact that it is unable to physically monitor on a day to day basis compliance with these recommendations, the quality of materials used (plaster and coloured finishes) and timings between applications, disclaims any responsibility for issues that may occur in the future.

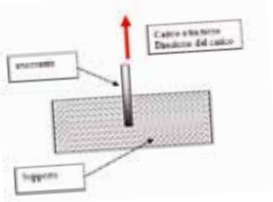
# TESTING OF ANCHORS SEAL AND TEAR STRENGTH ON ISOTEX WALL

On website [www.blocchiisotex.com](http://www.blocchiisotex.com) you can find and download the reports of the complete tests and the technical data sheets of the different types of fixing.

	<b>Progettazione e Sviluppo Prodotti</b> <b>RELAZIONE DI PROVA</b>	Format RP Rev. C Data: 06/02/08
		Doc. n°. RP 026-13 Rev. 1 Pagina 8 di 28
Oggetto: Prove di carico su prodotti ISOTEX <sup>®</sup> .		

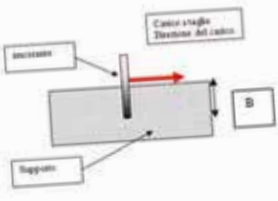
### 2.3. Schema di prova e attrezzature

**Carico a trazione**  
 Prove di carico eseguite con macchina di prova Spider BEAM cella di carico da 5 kN certificato di taratura N°27887 emesso da TMT e valido fino al 25/02/14



**Carico a taglio**  
 Prove di carico eseguite con macchina di prova

- Spider BEAM cella di carico da 50 kN N° 27885 emesso da TMT e valido fino al 25/02/14.
- Zwick Roell cella di carico da 250 kN N° 27879 emesso da TMT e valido fino al 25/02/14.



B=Braccio di leva : distanza di applicazione del carico misurato dalla linea superficiale del calcestruzzo in cui è inserito l'ancorante pari pertanto allo spessore dell'isolante e la parete in legno cemento.

	<b>Progettazione e Sviluppo Prodotti</b> <b>RELAZIONE DI PROVA</b>	Format RP Rev. C Data: 06/02/08
		Doc. n°. RP 026-13 Rev. 1 Pagina 27 di 28
Oggetto: Prove di carico su prodotti ISOTEX <sup>®</sup> .		

### 4. Resistenza trazione Schiuma poliuretano fischer FASTGRIP800



Prova di carico a trazione schiuma poliuretano fischer Fastgrip800  
 Prova eseguita incollando sulla superficie del blocco Isotex pastiglia in ceramica misura 200 x 200 mm  
 Trazione eseguita fino al cedimento del sistema.



#### Dati di prova

Prova	Carico (daN)	Esito
1	100	Rottura pastiglia
2	100	
3	100	
4	110	
5	120	
<b>media</b>	<b>106</b>	

Nessun cedimento legato alla superficie del blocco

# CERTIFICATES

Partial extract of certification in the verbatim version on the site [www.blocchiisotex.com](http://www.blocchiisotex.com)

ISOTEX <sup>®</sup>		DECLARATION OF PERFORMANCE N. 09-CPB-2013-06-12		CE	
1.	Product identification code of the product type	BLOCK ISOTEX <sup>®</sup> HD			
2.	Form, finish or other surface or other element allowing identification of the construction product as required under Article 1(1)(1) of the CE Mark	BLOCK ISOTEX <sup>®</sup> HD 44			
3.	Intended use or uses of the construction product or accessories with the appropriate technical specifications, as defined by the manufacturer	Wood-chip concrete slab/shutter blocks, with or without supplementary thermal insulation, to be dry stacked, intended use for the construction of external walls, internal walls and partitions, load or non-load walls, vertical floor slab elements, according to manufacturer			
4.	Name, registered trade name or registered mark and any other element of the manufacturer as required under Article 1(1)(1)	ISOTEX S.p.A. Via D'Este, 5/7 - 5/B 42028 POGGIOLO (RE) Italia			
5.	CE Marking	Not Applicable			
6.	System of assessment and verification of constancy of performance in accordance with the provisions of the Construction Products Regulation	System 4			
7.	Not Applicable	Not Applicable			
8.	Not Applicable	Not Applicable			
<b>DECLARED PERFORMANCE</b>					
<b>ESSENTIAL CHARACTERISTICS</b>		<b>PERFORMANCE</b>	<b>MINIMUM TECHNICAL SPECIFICATION</b>		
<b>ACoustic</b>					
Weight	100 mm ± 3 mm				
Height	100 mm ± 3 mm				
Width	100 mm ± 3 mm				
Weight per area	1000 kg/m <sup>2</sup>				
<b>STRUCTURAL BEHAVIOUR</b>		0.007 mm/m			
<b>FLAME RETARDANCE TO EN 13501-1 (RE)</b>		Reaction to fire class B-s1, d0			
<b>Mechanical properties</b>		20 N/m <sup>2</sup>	EN 12608:2008		
<b>Mechanical properties</b>					
Compressive strength of cube	0.12 MPa/m <sup>2</sup>				
Flexural strength of cube	1.12 MPa/m <sup>2</sup>				
Flexural strength of slab perpendicular to face	0.40 MPa/m <sup>2</sup>				
<b>Acoustic properties</b>					
Sound absorption coefficient	0.10				
<b>Thermal conductivity of wood chip concrete</b>		0.14 W/mK			
<b>EMITTERS</b>					
Total percentage of heavy metals with the exception of		0.05			
16. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 8. This declaration of performance is based on the sole responsibility of the manufacturer identified in point 4.					
Signed for and behalf of the manufacturer by: <b>GEMELLO LEOB - Managing Director of ISOTEX S.p.A.</b> Place: Poggio - Date: 03 May 2017					

Example of DOP (Protected Designation of Origin)

**AENOR**

**Certificado de conformidad del control de la producción en fábrica**

**CE**  
**0009**

**0099(CPR)/A87/0390**

In conformità al Reglamento sui Prodotti da Costruzione (UE) N. 305/2011 del Parlamento europeo e del Consiglio, del 9 marzo 2011, l'organismo notificato 02009 (n. 0099) ha rilasciato questo certificato per:

**ISOTEX S.R.L.**

con Sede Legale presso  
Prodotto da costruzione  
Norma armonizzata  
Riferimenti  
Sistema di certificazione

Via D'Este, 5/7-5/B, 42028 - POGGIOLO, (RE) - Italia  
Travetti per solai a travetti e blocchi  
EN 15317-1:2008  
in Allegato al Certificato  
Via D'Este, 5/7-5/B, 42028 - POGGIOLO (RE) - Italia

Questo certificato attesta che sono state applicate tutte le disposizioni di cui all'articolo 2° relative alla valutazione e verifica della conformità della produzione descritte nell'Allegato ZA della norma armonizzata di cui sopra, e che il controllo di produzione in fabbrica soddisfa tutti i requisiti prescritti nella norma armonizzata.

Questo certificato rimane valido fino alla sua data di scadenza, a condizione che non siano cambiati i metodi di prova e requisiti per il controllo della produzione in fabbrica inclusi nella norma armonizzata per valutare la prestazione delle caratteristiche dichiarate, e che le condizioni di produzione non siano cambiate in modo significativo.

Data prima emissione: 2009-12-24  
Data ultima estensione: 2018-12-24  
Data di scadenza: 2029-12-24

Rafael GARCIA MERO  
Direttore Generale

AENOR Italia (n. 0099) - 02009 (n. 0099) - www.aenor.com

Obligatory flooring EC marque dated 01.01.2011

**CSTB**  
The future of construction

Record of classification No. RS12-042

**5. CLASSIFICATION AND SCOPE OF DIRECT APPLICATION**

**5.1 Classification reference**  
This record of classification has been delivered conforming to article 7.3.2 of the Law NF EN 13501-2 (May 2004).

**5.2 Classifications**  
The building element, the aim of this document, is classified according to the following combination of parameters and performances. **No other classification is authorised.**

RE	120
REI	120

**5.3 Validation conditions of the classification**

**5.3.1 Use and application**  
The object and its assembly have to conform to the detailed description made in the test report No. RS12-042, which can be requested without the obligation of document deposition in case of object identification challenges.

**5.3.2 The environment and direct application**  
To maintain the validity of the classification, its extension can be used in application environments stated by norm. NF EN 1365-1 (June 2000 edition) or conforming to extensions formed by the laboratory.

**5.3.3 Exposure conditions**  
Fire on the internal side (core side in cement and, as need be, from the opposite part of the insulate cushion).

**5.3.4 Load**  
Load ≤ 40000 daN/m<sup>2</sup> equally spread across the thickness of the core in cement (centre leaning).

**5.3.5 Length extension**  
The perpendicular section of the wall is not limited.

**5.3.6 Height extension**  
The height of the wall is limited to 3 metres.

**5.3.7 WALL THICKNESS**  
The minimum thickness of the wall 440 of which:  
• Minimum thickness of 150 for the cement core.  
• Maximum thickness of 210 for the insulate.

No. REI: 26039763 - AMBLS  
DISP/REI/12.031

DS/RS/REI/RECORD - Ref. 04

REI120 - CSTB classification

DNV-GL

**MANAGEMENT SYSTEM CERTIFICATE**

Certificate no./Certificate No.: 1287/04707-09-02/800-20020671 Date prima emissione/Initial date: 29 luglio 1999 Validità/Valid: 13 luglio 2027 - 13 luglio 2030

Si certifica che il sistema di gestione di/This is to certify that the management system of

**ISOTEX S.r.l. - Sede Legale e Operativa**  
Via D'Este 5/7 - 5/B - 42028 Poggio (RE) - Italia

È conforme ai requisiti della norma per il Sistema di Gestione Qualità/ has been found to conform to the requirements of the Quality Management System standard: **ISO 9001:2015**

Questa certificazione è valida per il seguente campo applicativo:  
**Produzione e commercializzazione di: blocchi casero, solai, elementi da costruzione e manufatti in genere in legno-cemento (EA: 16, 29)**

This certificate is valid for the following scope:  
**Manufacture and trade of wood-chip concrete slabs/shutter blocks, floor slabs, construction elements and artifacts in general (EA: 16, 29)**

Logo e Data/Pace and date: **Venezia (VE), 21 luglio 2018**

Per l'Organismo di Certificazione/ For the Certification Body:  
**DNV GL - Business Assurance**  
Via Sestiere Porto, 14 - 30171 Venezia (VE) - Italia

Seno Sottiner  
Management Representative

Certification of quality ISO 9001:2008

N° EDH 2009 006  
2.2.2018 Rev. 01

**Certificate of Conformity**  
Institute for Ethical and Environmental Certification  
certifies that

**ISOTEX S.r.l.**

In conformity to the general and specific requirements of the ANAB's Standard for Eco-Building Materials (MAT\_BIODEGRADABLE Rev.01)

This Certificate covers the following products:

Wood - cement slat/shutter block  
Wood - cement roofing element  
Wood - cement sound absorbing element for noise barriers  
Wood - cement internal partition

**< ISOTEX<sup>®</sup> >**

**Requirements**

1. The CE of the product is based on the records that reflect the use of high quality materials.

2. The products and their components are not dangerous for human health.

3. The products and their components are not dangerous for the environment.

4. The products are safe and do not contain any dangerous substances.

5. The products are safe and do not contain any dangerous substances.

**Legal and Customer Satisfaction**

**ECO-BUILDING MATERIALS**  
Compliant with  
MAT\_BIODEGRADABLE Rev.01 and  
MAT\_BIODEGRADABLE Rev.01

Issue of issue: **January 2017, 2017**  
Rev. Certification Body: **DNV GL - Business Assurance**  
Via Sestiere Porto, 14 - 30171 Venezia (VE) - Italia

Issue of validity: **December 17<sup>th</sup>, 2020**  
Rev. Certification Body: **DNV GL - Business Assurance**  
Via Sestiere Porto, 14 - 30171 Venezia (VE) - Italia

1 / 1

Sustainable housing certification

**EPD**

**ENVIRONMENTAL PRODUCT DECLARATION (EPD) FOR WOOD CEMENT BLOCKS**

**ISOTEX<sup>®</sup>**

Company: ISOTEX Srl  
Via D'Este, 5/7-5/B, 42028 Poggio (RE)  
[www.blocchiisotex.com](http://www.blocchiisotex.com)

Programme operator: The International EPD<sup>®</sup> System - c/o EPD International AB  
Vatthulavägen 81 SE-114 27 Stockholm Sweden  
[www.epdint.com](http://www.epdint.com)

PCR: 2012-01 Construction products and construction services version 2.3  
Geographical scope: Europe  
EPD registration number: S-P-01472  
ECO EPD reference number: 00000795  
Date of publication: 2018-12-25  
Date of validity: 2023-12-18

EPD - Environmental Product Declaration

This Document named "Operational Assembly Manual" is the exclusive property of ISOTEX Srl.

ISOTEX makes the operational assembly manual available to its clients as a useful and important compendium for the correct laying and use of Blocks and Flooring panels, made up of the ISOTEX® anti-seismic construction method.

The operational assembly manual contains and illustrates the particulars of applying ISOTEX® products with related recommendations. The document has been produced by ISOTEX Srl, and consequently must only and exclusively be used in relation to the ISOTEX® construction method.

The operational assembly manual may not be reproduced and used, as a whole or in part, without the express previous approval of ISOTEX Srl.

All abuses and/or misappropriation of the operational assembly manual (including attempts to associate it to a method and/or a product even if only similar to ISOTEX®) will be prosecuted to the full extent of the law, notwithstanding ISOTEX® declining all responsibilities regarding any damages or malfunctions deriving from the aforementioned abuses and/or misappropriation.

Maximum seismic safety & living comfort, always.



**ISOTEX**<sup>®</sup>  
Wood-cement blocks and floor slabs

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