



READYFLOOR

THE COMPLETE
FLOORING SOLUTION

Guide for the housing sector

READYFLOOR – The complete CEMEX structural flooring solution

CEMEX are able to provide the total package of products to complete the structural floor supplying all the necessary materials and components, from substructure to finished floor level, ensuring continuity of supply of quality assured and responsibly sourced materials.

Beam and block construction overcomes many onsite difficulties such as costly excavation and consolidation of backfill prior to the placing of oversite concrete.

ReadyFloor 155mm is ideal for the domestic housing market and is extensively used in major developments. Ease of installation and greatly improved sound and thermal insulation properties as well as enhanced fire protection, means that ReadyFloor is a convenient and effective option for ground, first and all subsequent floors.

ReadyFloor can be delivered throughout the UK from stock on vehicles equipped with special beam grabs for mechanical offloading. Infill blocks from the ReadyBlock range can be supplied with beams along with air bricks, vents, ceiling clips and split course blocks.

The benefits of buying through CEMEX:

- **Adding value through enhanced customer service** – our technical and design teams provide a detailed and personal service through every step of the process for a seamless end to end solution
- **Design and sales offices** – both able to send and receive AutoCad drawings and deal with enquiries, quotes and orders electronically, giving you greater flexibility
- **In-house engineer** – will discuss structural issues with your designers to provide an economic solution
- **Detailed CAD layout drawings** and a schedule of individual components are provided
- **Structural calculations** – full detailed calculations are provided to meet the requirements of Building Control
- **CEMEX collateral warranty** – allowing you to build with confidence

Accreditations:

- **ISO 9001** Accredited Quality Management System CEMEX Floors controlled manufacturing allows the production of a high quality wet cast prestressed beam, which provides the contractor the fine tolerances and accuracies required for the ease of laying. All ReadyFloor beams are manufactured and tested in accordance with the requirements of BS8110 – 1 1997 and BS EN 1992-1-1 2004
- **ISO 14001** Accredited Environmental Management System. All the materials used in the production are from recognised environmentally managed sources
- CEMEX ReadyFloor beams are not only manufactured to strictly controlled quality guidelines but are also rated 'Very Good' under **BES6001**, qualifying as the highest tier level of MAT2 Responsible Sourcing of Materials



For further enquiries
or to place an order:

Call:

Sales: 0345 322 7650 or

Technical Helpline: 0800 667 827

E-mail:

gb-readyfloorsales@cemex.com

Visit:

cemex.co.uk/flooring-quotations.aspx

or scan the QR code below

Our complete guide is available to
download at cemexliterature.co.uk



Three Designed Flooring Systems to Choose From:

ReadyFloor

Benefits of ReadyFloor

- Overcomes many onsite difficulties such as costly excavation and consolidation of backfill
- ReadyFloor 155mm is ideal for the domestic housing market
- When completed and brush grouted, provides an immediate working platform
- Significantly reduces costs through reduced preparation and speed of installation
- Can be installed in adverse weather conditions

ReadyFloor has additional benefits when used at first and subsequent floor levels, these include:

- Greatly improved sound reduction between floors
- Improved thermal insulation
- Considerably enhanced fire protection
- Concrete floors do not 'squeak' with movement
- Allows for block partitions to be built at first floor level
- Allows for flexibility of room layout
- Ideal for under floor heating



ReadyTherm & Tetris

ReadyTherm flooring system combines the CEMEX ReadyFloor T beam and high-strength EPS panels providing total floor insulation and a formwork on which to lay the structural screed.

Benefits of ReadyTherm

- Approved by major house builders
- BBA certified
- Faster floor construction
- Reduced load on foundations
- Produces a floor with zero cold bridging
- Easily incorporates under floor heating system
- No secondary insulation required
- Easy to cut around services
- Requires a structural topping

Tetris® is a unique patented thermal insulation floor system consisting of large, lightweight, ultra high compressive strength insulation blocks which sit on and between CEMEX ReadyFloor T Beams. The blocks are then covered with a structural concrete topping to produce a super insulated floor.

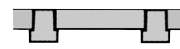
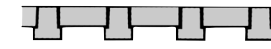
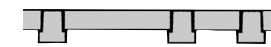



Benefits of the Tetris Flooring System

- Faster floor construction (up to 16x less blocks to install)
- Supplied to site in plot specific quantities
- Reduces the amount of concrete required
- Produces a floor with zero cold bridging
- Easily incorporates under floor heating system
- Fewer beams required
- Easy to cut around services
- Requires a structural topping



Load Span Tables

Domestic ground and first floors






| Load / Span Charts for 155mm deep beams at varying centres With 100mm thick blocks (max density = 1900 kg/m ³) | | | | | | | | |
|---|--|--|-------|-------|-------|-------|-------|---|
| 1900 kg/m ³ infill, 65mm screed | | SIL (Superimposed loads) kN/m ² | | | | | | |
| | Floor Self Weight (kN/m ²) | 1.5 | 2 | 2.5 | 3 | 4 | 5 | |
| Condition No. A Beams at 520c/c | 2.24 | 4.150 | 3.975 | 3.800 | 3.600 | 3.100 | 2.725 |  |
| Condition No. B Beams at 295c/c | 2.53 | 5.350 | 5.150 | 4.950 | 4.775 | 4.450 | 4.225 |  |
| Condition No. C Beams at 520 & 295c/c* (equiv. to 408c/c) | 2.35 | 4.650 | 4.450 | 4.275 | 4.100 | 3.850 | 3.425 |  |
| Condition No. D Double Beams at 648c/c (equiv. to 324c/c) | 2.51 | 5.150 | 4.925 | 4.725 | 4.575 | 4.275 | 4.025 |  |
| Condition No. E Double Beams at 422c/c (equiv. to 211c/c) | 2.86 | 5.900 | 5.850 | 5.700 | 5.500 | 5.175 | 4.900 |  |
| Condition No. F Beams at 127c/c | 3.60 | 5.900 | 5.900 | 5.900 | 5.900 | 5.900 | 5.900 |  |

Notes:

1. Load span tables based upon finishes of 1.56 kN/m² (65mm screed). 2. No allowance made for partitions.

Load Span Tables

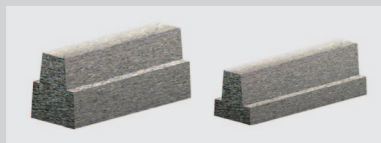
Domestic ground and first floors

| Load / Span Charts for 155mm deep beams at varying centres | | | | | | | | |
|--|--|--|------|------|------|------|------|---|
| With ReadyTherm insulation blocks | | | | | | | | |
| | | SIL (Superimposed loads) kN/m ² | | | | | | |
| | Floor Self Weight (kN/m ²) | 1.5 | 2 | 2.5 | 3 | 4 | 5 | |
| Condition No. A Beams at 620c/c | 0.58 | 4.46 | 4.20 | 3.98 | 3.76 | 3.14 | 2.70 |  |
| Condition No. B Beams at 350c/c | 1.01 | 5.64 | 5.34 | 5.08 | 4.86 | 4.48 | 4.19 |  |
| Condition No. C Beams at 620 & 350c/c* (equiv. to 485c/c) | 0.73 | 4.95 | 4.67 | 4.43 | 4.23 | 3.89 | 3.39 |  |
| Condition No. D Double Beams at 620c/c (equiv. to 374c/c) | 1.09 | 5.40 | 5.12 | 4.88 | 4.66 | 4.31 | 4.03 |  |
| Condition No. E Double Beams at 350c/c (equiv. to 239c/c) | 1.69 | 5.90 | 5.90 | 5.77 | 5.56 | 5.17 | 4.86 |  |
| Condition No. F Beams at 127c/c | 3.60 | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 | 5.90 | |

Notes:

1. Load span tables based upon finishes of 1.8 kN/m² (75mm topping).
2. No allowance made for partitions.

1. ReadyFloor 155mm deep pre-stressed flooring beam (225dp also available)



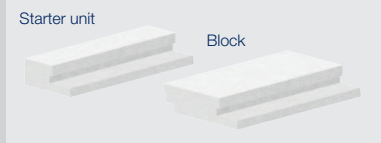
2. • CEMEX Infill block
• Split course block on damp proof course - special infill unit to fit between bottom flange of floor beams in traditional beam and block configuration.



3. Profile block for robust detail

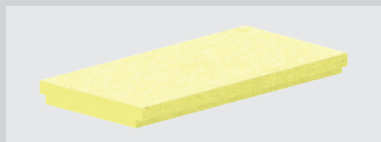


4. ReadyTherm EPS insulation panels to fit between and under the floor beams to achieve a very low U value (up to $0.1\text{Wm}^{-2}\text{K}^{-1}$):

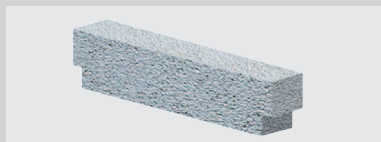


- ReadyTherm starter unit
- ReadyTherm block
- ReadyTherm end unit

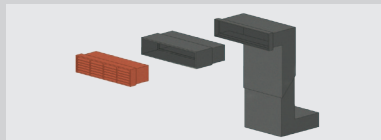
5. Tetris Extruded insulation panel to fit between and over the beams to achieve low U values ($>0.25\text{Wm}^{-2}\text{K}^{-1}$)



6. Precast closure block special shaped infill unit to fit between end of floor beams used in conjunction with insulated flooring system



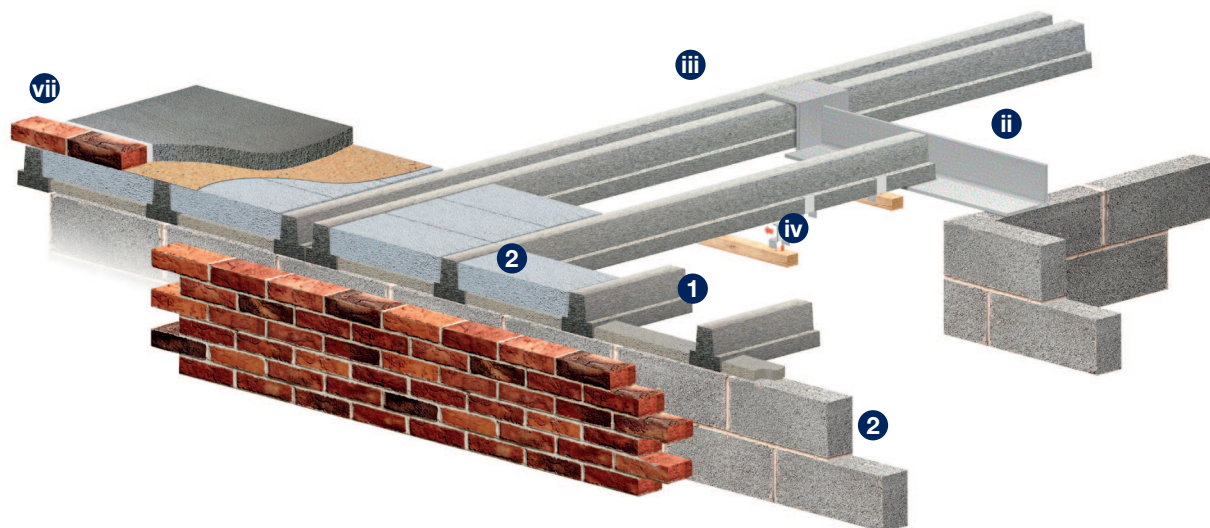
7. Ventilation plastic 215 x 65mm air bricks and telescopic underfloor vents with extension sleeve



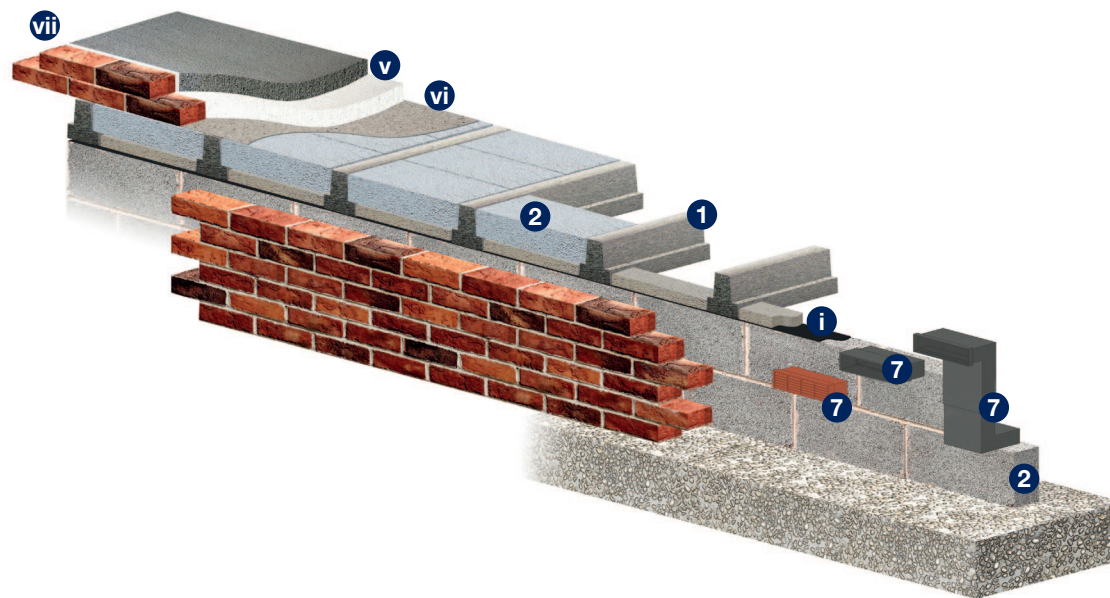
Other components:

- i. Damp proof course
- ii. CEMEX trimmer details
- iii. Trimmer beams to CEMEX design
- iv. Ceiling clip
- v. Insulation on damp proof membrane
- vi. Damp proof membrane
- vii. Insulation edge strip

Upper floor

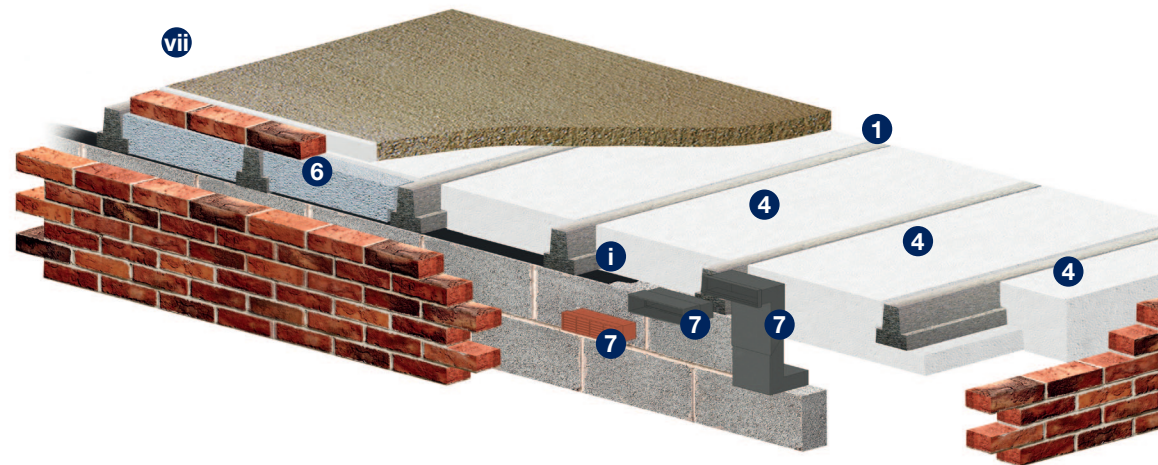


Ground floor

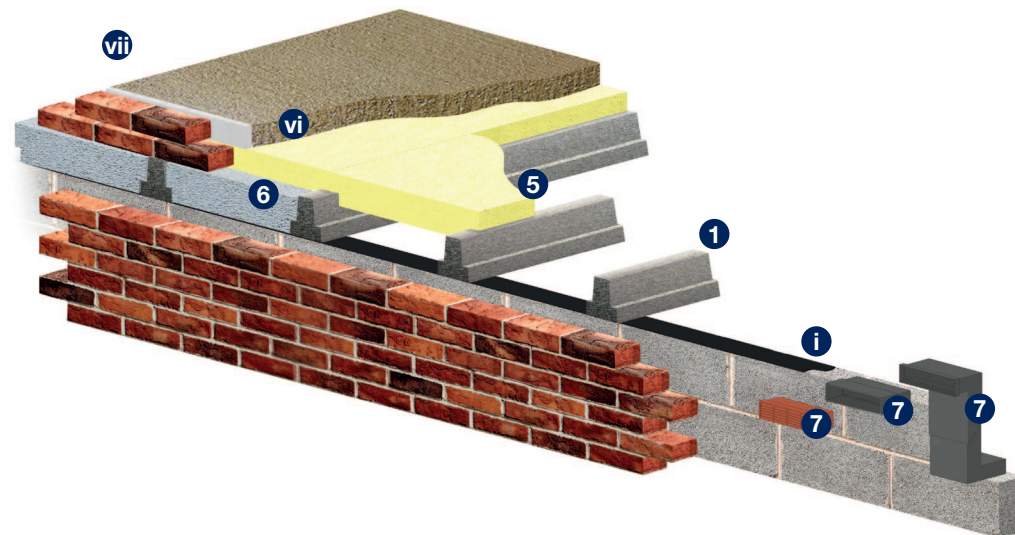


Components

ReadyTherm



Tetris



1. ReadyFloor 155mm deep pre-stressed flooring beam (225dp also available)



2. • CEMEX Infill block



• Split course block on damp proof course - special infill unit to fit between bottom flange of floor beams in traditional beam and block configuration.

• Perimeter course of masonry

3. Profile block for robust detail

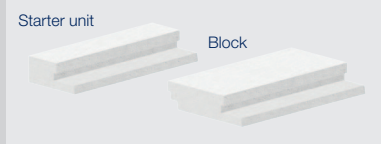


4. ReadyTherm EPS insulation panels to fit between and under the floor beams to achieve a very low U value (up to $0.1 \text{Wm}^2 \text{K}^{-1}$):

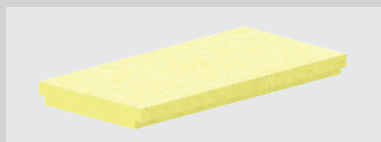
• ReadyTherm starter unit

• ReadyTherm block

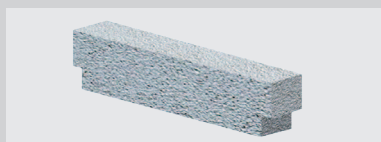
• ReadyTherm end unit



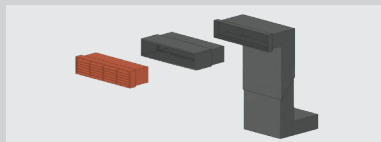
5. Tetris Extruded insulation panel to fit between and over the beams to achieve low U values ($>0.25 \text{Wm}^2 \text{K}^{-1}$)



6. Precast closure block special shaped infill unit to fit between end of floor beams used in conjunction with insulated flooring system



7. Ventilation plastic 215 x 65mm air bricks and telescopic underfloor vents with extension sleeve



Other components:

i. Damp proof course

ii. CEMEX trimmer details

iii. Trimmer beams to CEMEX design

iv. Ceiling clip

v. Insulation on damp proof membrane

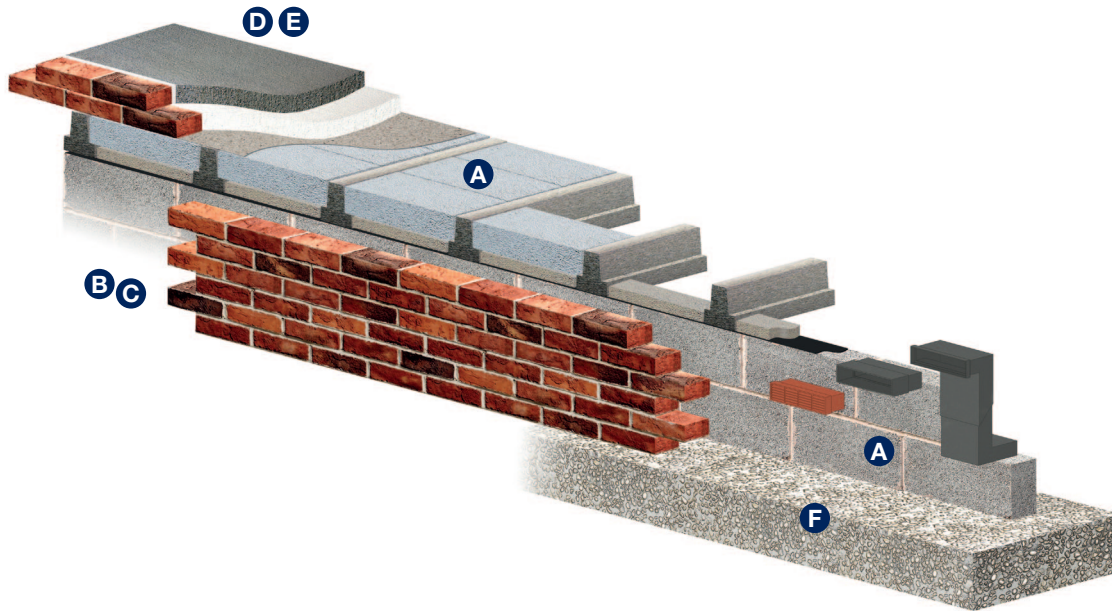
vi. Damp proof membrane

vii. Insulation edge strip

Components

Other Products

CEMEX are able to offer packaged solutions to meet your requirements



A. ReadyBlock

With the ReadyBlock range of Dense and Lightweight Concrete Blocks from CEMEX, you are assured to find the building solution you need.

See more at cemex.co.uk/masonryproducts



B. Dry Silo Mortar

CEMEX dry silo mortar provides an innovative and efficient solution to mortar delivery, particularly to larger sites.

See more at cemex.co.uk/drysilomortar



C. Ready to Use Mortar

From a small domestic extension to a major multi-storey development, CEMEX ready-to-use mortar is ideally suited to every application.

See more at cemex.co.uk/readytousemortar



D. Readyscreed

A range of high quality, retarded screeding mortars with more accurate mix proportions, consistent properties, shorter drying times and higher strength than site mixed screeds. Sand and cement grout also available.

See more at cemex.co.uk/readyscreed



E. Supaflo

A self-compacting, self-levelling, flowing product which can be placed at up to 10 times the rate of a traditional concrete screed, generating significant labour and time cost-savings.

See more at cemex.co.uk/supaflo



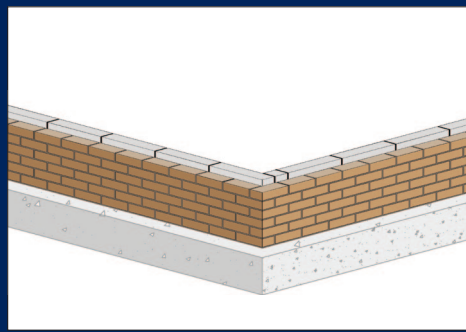
F. Readymix Foundations

Readymix Foundation is a versatile, economical and durable concrete designed specifically for foundations and groundwork.

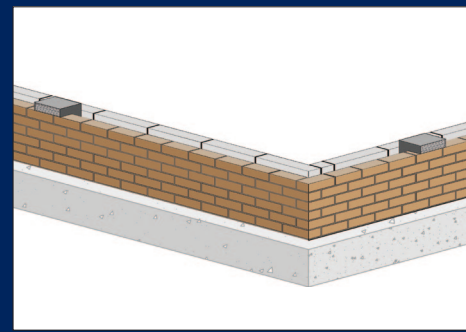
See more at cemex.co.uk/concretfoundations



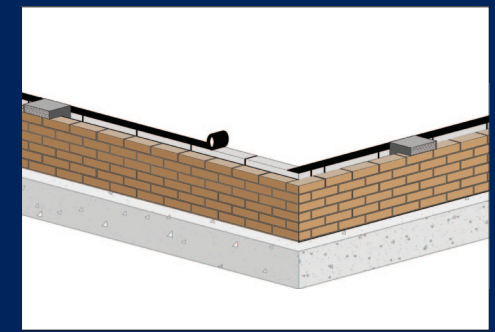
Beam and block laying process



Walls taken up to DPC level. Top soil and vegetable matter removed. Void to be provided to underside of floor.



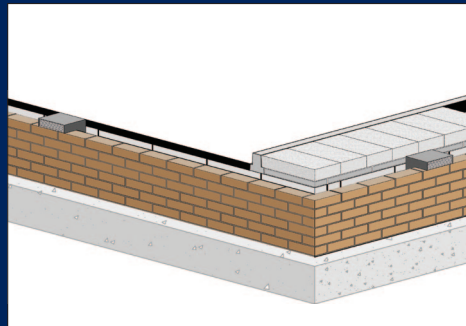
Air bricks installed. Requirement for 1500mm² of free air flow per metre run of wall, or 500mm² per square metre of floor area, whichever is greater.



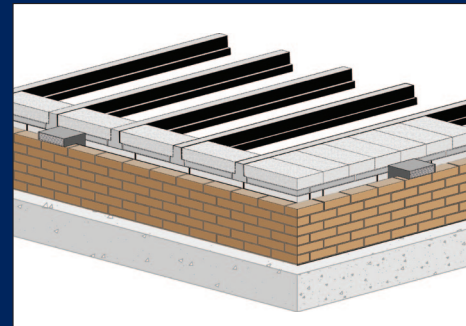
DPC to be provided under bearing ends of floor beams. The bearings for the beams should be clean, level and free from debris. The mortar in the masonry must be cured and have sufficient strength to support the floor.



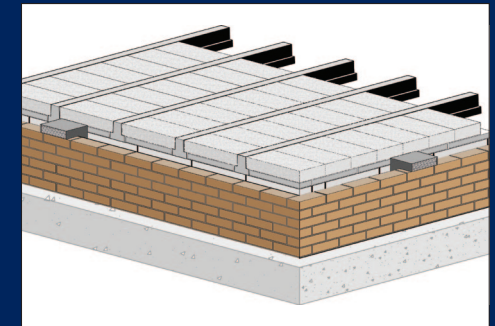
First beam is positioned using contract layout drawings supplied by CEMEX Floors technical office. Split course blocks to be provided under infill blocks where built into support wall.



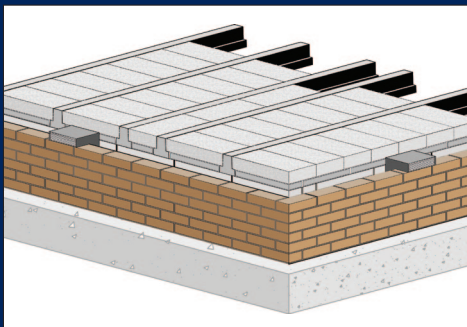
All infill blocks to be fully bedded onto split course blocks. Split course to be bedded onto support wall below.



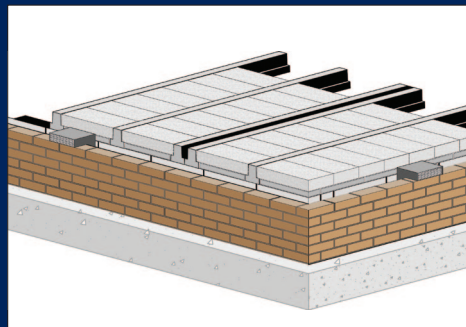
The floor may be installed using the infill block as spacers between the ends of the floor beams. Spacings will be indicated on contract layout drawings supplied by CEMEX Floors technical office.



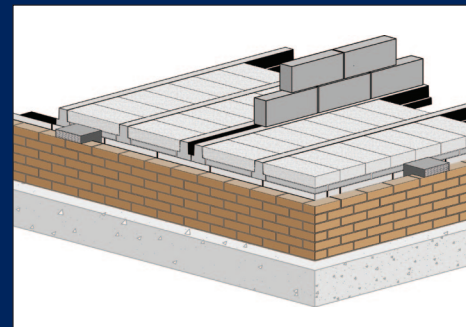
Infill blocks installed to whole of floor area. On completion a sand/cement (4:1) slurry grout to be applied to whole of floor area. Floor does not form a stable working platform until this has been carried out.



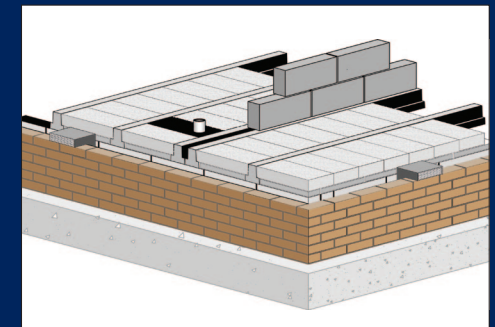
Beam centres may be closed up by re-orientating infill block, as indicated on the contract layout drawings.



Beams may be doubled up if required by the contract layout drawing. The space between the beams above the flanges must be filled with in situ concrete of minimum compressive strength 30N/mm² with 10mm sized aggregate.



Beams may be doubled up to support block partitions. The space between the beams above the flanges must be filled with in situ concrete of minimum compressive strength 30N/mm² with 10mm sized aggregate before partitions are built.



Infill block may be omitted to allow service penetrations through the floor. The void may be shuttered and filled with in situ concrete to complete the floor.



For further enquiries or to place an order:

Call:

Sales: 0345 322 7650 or

Technical Helpline: 0800 667 827

Email:

gb-readyfloorsales@cemex.com

Visit:

cemex.co.uk/flooring-quotations.aspx

or scan the QR code right

Our complete guide is available to
download at cemexliterature.co.uk



HELPING TO BUILD A **GREATER BRITAIN**