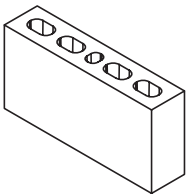




## Material Datasheet

# CELLULAR DENSE READYBLOCK® STANDARD AND CLOSE TEXTURED FINISH

With the ReadyBlock® range of Dense and Lightweight Aggregate Blocks from CEMEX, you are assured to find the building solution you need. Our blocks can be used with confidence in a wide variety of internal and external applications. Our quality assured manufacture ensures that ReadyBlock® units are of a consistent and superior quality to meet the requirements of all European and British standards.



### Sizes available (in mm)

Length	Height	Width	
440	215	100	140
Block Weights (kg)*		100	140
Dry		15.5	19.3
3% Moisture Content		16.0	19.9

\*These figures are a national average and variations may occur geographically, please contact your nearest Sales Office for more precise block weights.

ReadyBlock® Sales Office:  
North: 01236 822461  
South: 01298 22244

### Product Specifications

#### CEMEX READYBLOCK® TO BS EN 771-3:2003

'Aggregate Concrete Masonry Units Category 1 (dense and light-weight aggregates)'

<b>CATEGORY :</b>	AGGREGATE CONCRETE MASONRY UNIT	
<b>DIMENSIONAL TOLERANCES :</b>	Category	D1 (+3mm, -5mm)
	Flatness	No Performance Determined
	Plane Parallelism	No Performance Determined
<b>CONFIGURATION :</b>	For more information on void configuration, please contact your nearest sales office.	
<b>COMPRESSIVE STRENGTH :</b>	Mean 3.6 N/mm <sup>2</sup> , 7.3 N/mm <sup>2</sup>	
<b>MOISTURE MOVEMENT COEFFICIENT :</b>	= < 0.5 mm/m	
<b>BOND STRENGTH :</b>	Fixed Value, 0.15N/mm <sup>2</sup>	
<b>REACTION TO FIRE :</b>	Class A1	
<b>WATER ABSORPTION :</b>	No Performance Determined	
<b>WATER VAPOUR PERMEABILITY(EN 1745) :</b>	5/15 μ	
<b>GROSS DRY DENSITY :</b>	100mm width = 1640 kg/m <sup>3</sup> 140mm width = 1460 kg/m <sup>3</sup>	
<b>NET DRY DENSITY :</b>	1960 kg/m <sup>3</sup>	
<b>THERMAL RESISTANCE :</b>	100mm width = Int, 0.11 m <sup>2</sup> K/W Ext, 0.10 m <sup>2</sup> K/W 140mm width = Int, 0.16 m <sup>2</sup> K/W Ext, 0.15 m <sup>2</sup> K/W	
<b>DURABILITY AGAINST FREEZE-THAW :</b>	No Performance Determined	
<b>DANGEROUS SUBSTANCES :</b>	Information on dangerous substances will only be given when and where required and in the appropriate form.	

### Features and Benefits

- Reduced unit weight for ease of handling
- Reduced floor/foundation loadings
- Available either open textured to provide an excellent medium for surface finishes or close textured for painting

## Delivery and Storage

Blocks are normally delivered to site in banded packs on crane-offload road vehicles. Where requested packs can be delivered shrink-wrapped and/or palletised to aid subsequent site movement activities. All packaging should be disposed of carefully in accordance with local environmental requirements.

If possible, delivered blocks should be stacked in planned locations on the site. This reduces the double-handling of the blocks.

Packs should be stacked carefully onto a prepared, clean, firm area to minimise soiling and damage. They should also be protected from inclement weather and passing vehicles. Allow air to circulate through and around the stacks.

## Health and Safety

Care and attention should be given to the working area to minimise accidents. Further information may be found in HSE Construction Sheet 37-Handling Building Blocks.

Safe lift/build heights will vary dependant upon the block type, thickness, etc. Weather conditions can also affect lift heights and restrictions may be needed due to forecasted windy weather. Generally, lift heights should not exceed 6 full block courses in a single working day. For cavity wall construction, the 2 leaves should be built up together and the difference in leaf height, at any stage during construction, should generally not exceed 675mm.

A separate material safety datasheet for precast concrete products is available from CEMEX.

## Blocklaying

**General Construction:** The building of masonry walling should be to the workmanship guidance given in BS 8000-3.

**Walls Below DPC:** Cellular Dense Blocks can be used below DPC and ground level as noted in Table 12 of BS 5628-3.

**Laying in cold weather conditions:** Blocks should not normally be laid when the temperature is at or below 3°C and falling or 1°C and rising.

**Laying:** Cellular blocks should be laid on a full bed of mortar and the cross/perpend joints fully filled. When necessary, adjust the consistency of the mortar to suit the suction of the blocks.

**Bond:** Blocks should be laid to achieve a good bond, normally not less than one quarter the block length. In certain situations, consideration should be given to the addition of bed joint reinforcement.

**Cutting and Chasing:** Where cutting of blocks is required on-site, the use of a central cutting area should be encouraged. Each pack of blocks contains a small number of 'splitter' blocks which contain a narrow central slot to aid splitting into two halves. Due to the internal voids, cellular blocks are not suitable for chasing.

**Jointing:** Mortar joints should be struck off as work proceeds. Where subsequent rendering or plastering is to take place, then the joints should be slightly raked out to act as a mortar key. Flush joints are recommended for facing work. Lightly tooling the joints highlights the arrises of the blocks and hence the coursing, scale and appearance of the finished wall. Raked joints should be used with caution.

**Use in Sulfate Soils:** Dense Cellular Blocks can be used in chemically aggressive ground conditions up to & including Class DS-3 as detailed in BRE Special Digest 1.

**Mortar:** Mortar should be specified in accordance with Cl. 5.7 of BS 5628-3. To limit the visual impact of shrinkage cracking, the weakest mortar specification appropriate to the structural design should be chosen.

## Finished Work

**Protection of finished work:** All blockwork should be protected from inclement weather and other on-site practices. Suitable protective sheeting should be placed over the blockwork and firmly tied into place. Care must be taken to protect the work from frost damage or rapid drying out.

**Movement Control:** After construction, buildings are subject to small dimensional changes due to settlement, temperature change, moisture movement & carbonation. To account for this, movement joints should be provided in accordance with the recommendations of BS 5628: Part 3. Generally, they are required at intervals of 6-8m for external work. Movement joints are not normally required for basic domestic dwellings. Consideration for the location of movement joints should be given:

- At changes in wall height or thickness
- At changes of loading conditions
- At abutments of walls and columns and junctions of dissimilar materials
- To align with movement joints in concrete floor slabs
- Between 1m & 3m from a corner
- At locations of recesses & openings

In areas of concentrated stress, such as above and below openings, consideration should be given to the use of mortar joint bed reinforcement.

**Render:** All work should conform to recommendations stated in BS EN 13914-1- External Rendering. In conditions of severe exposure, 3 coat work is recommended with a total thickness of 20mm. Allow adequate drying time between finishes or coats.

**Plastering:** All work should conform to the recommendations stated in BS EN 13914-2:2005 - Internal Plastering. The surface of Cellular Dense ReadyBlock® provides a good key for all types of plaster. Dry-lining systems are compatible with the ReadyBlock® range.

**Painting:** Standard Finish Cellular ReadyBlock® are not intended to be directly painted. Where a paint finish is required a plaster or render finish should first be applied. Alternatively a Close Textured Cellular ReadyBlock® can be specified in which case two coats of alkali – resisting masonry paint is recommended, applied after the masonry has dried out. Before application any signs of efflorescence or other surface staining must be removed.

**Fixing:** The Cellular ReadyBlock® range is suitable for most types of lightweight fixings, masonry nails, plugs & screws. Heavy items require support from 'built in' anchorages.

**Efflorescence:** Concrete products with high cement content may suffer the temporary phenomenon of efflorescence. This is not detrimental to the performance of the product and no responsibility can be accepted for its occurrence.

## Sustainability

At CEMEX our environment matters, and the thermal mass of our ReadyBlock® range not only could reduce the need for air-conditioning in the summer but could also reduce the consumption of winter heating fuel by capturing solar gains.

## FAQ's

### Q. What is the U value (thermal performance) of ReadyBlock®?

A. Individual blocks do not have U Values. A U Value is determined by the type and thickness of each of the elements used to construct the wall, including airspaces. Extensive thermal insulation data is given in BRE Special Digest (SD4) 'Masonry walls and beam and block floors' available free of charge from CBA, alternatively, call our ReadyBlock® Helpline Tel: 0800 667 827.

### Q. What is the life expectancy of aggregate blockwork?

A. It has been shown over a period of many decades that if protected from aggressive chemical or abrasive situations, concrete blockwork does not deteriorate with time.

### Q. Are Cellular Dense ReadyBlock® suitable for the construction of party walls as regards sound insulation?

A. These blocks are not recommended for party wall construction.

### Q. Are Cellular Dense ReadyBlock® suitable for all categories of construction?

A. Cellular blocks can be used from a structural point of view for housing, but due to the high levels of cutting & services installation; they are rarely used. Cellular blocks are generally specified where a dense aggregate block is required but less weight is advantageous.

**For more information contact our ReadyBlock® Helpline  
Tel: 0800 667 827.**