

## CONCRETE WALLING PRODUCTS



### Standard Blocks

Roadstone manufacture the most extensive range of standard blocks in Ireland today. They are available in both metric and modular size ranges and are suitable for plastering.



### High Strength Blocks

Roadstone manufacture a range of high strength blocks to comply with IS 20: 1987. 100mm Solids are available as S10, S20 and S30. 215mm Hollows are available as H10. These are integrally coloured as required by the Irish Standard. Please contact our Technical Department in relation to other strengths which are available to special order.



### Roadstone Liteblock\*

Liteblocks are a range of special lower density blocks. Densities range from 1000 kg/m<sup>3</sup> to 1400 Kg/m<sup>3</sup>. They are specially useful to reduce selfweight loads and have excellent fire resistance.



### Hallmark Walling\*

Hallmark Walling is an outstanding alternative to natural stone or brick. Manufactured in a range of colours and traditional sizes, it brings the appeal and charm of natural stone to our modern environment.



### Fine Texture Blocks

Fine Texture blocks are manufactured from specially graded aggregates to give a finer texture than standard blocks. They are made to tighter tolerances than standard blocks and are either left unplastered internally or painted. The colour of the blocks will vary.



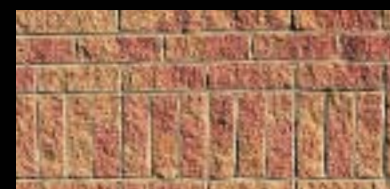
### Roadstone 45 Block\*

The Roadstone 45 Block incorporates 55mm of high density Aeroboard between two leaves of concrete. The Roadstone 45 Block gives the necessary U value of 0.45 W/m<sup>2</sup>K when correctly built. This is the most up to date development in cavity wall construction.



### Soundblox\*

Roadstone Soundblox have been specially designed to absorb noise. They have a noise reduction coefficient of 0.75. They are particularly effective in reducing the noise levels in factories, sports halls, swimming pools, etc. They are a very economical means of acoustical correction and noise control.



### Huntstown Brick\*

Huntstown Brick is available in four ranges with over twenty choices and two separate textures. When combined with the appropriate Roadstone coloured mortar they achieve an aesthetically pleasing and durable finish.



### Painting Quality Blocks

Painting Quality blocks have been specially developed for projects where painted block-work is specified. They are manufactured to IS 20: 1987: Part 1.



### Safewarm\*

SafeWarm is a cavity wall system in one block. It is used in the construction of the ultra-low energy Roadstone SafeWarm Home System. The block incorporates 100mm of high density Aeroboard. An effective U value of 0.31 W/m<sup>2</sup>K can be achieved using the Safewarm system.



### Forticrete Masonry\*

Forticrete Masonry is a range of very high quality blocks in many different shapes and styles characterised by distinctive colours and textures. Forticrete Masonry is available in both the 450 and 400 ranges in seven textures and fifteen different colours.



### AbbeyStone\*

AbbeyStone adds a natural weathered appeal to the classic masonry finish. Available in a variety of no less than 15 colour variations and with such a broad selection of 'special' shapes and sizes as standard, AbbeyStone offers an almost limitless variety of options.

\* Separate brochure available

**roadstone**

A CRH Group Company

**CONCRETE BLOCKS,  
READYMIXED CONCRETE,  
MACADAM AND ASPHALT,  
ARCHITECTURAL PRODUCTS,  
STONEFILL AND ROAD  
CHIPS, SAND AND  
AGGREGATES, PAVIORS  
AND PAVING FLAGS,  
MORTARS AND DASHING.**

**SPECIALIST CONTRACTORS  
FOR MACADAM, ASPHALT  
AND PAVIORS.**

**Roadstone Dublin Ltd.  
Head Office:**

Fortunestown, Dublin 24

Telephone: (01) 404 1200

Facsimile: (01) 404 1353

Web: [www.roadstone.ie](http://www.roadstone.ie)

Concrete Building Blocks are manufactured from naturally occurring raw materials and are subject to variations in shade and texture. It is not possible to show colour or texture accurately in a printed brochure and selection should always be made from samples which are available on request. Our policy is of continuous product improvement. Accordingly we reserve the right to alter designs without notice. Please consult our representatives for any changes. All products are subject to our Terms and Conditions of Sale, copies of which are available on request.

February 2003

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I.S. EN ISO 9002

# Concrete Building Blocks

**roadstone**

## Introduction

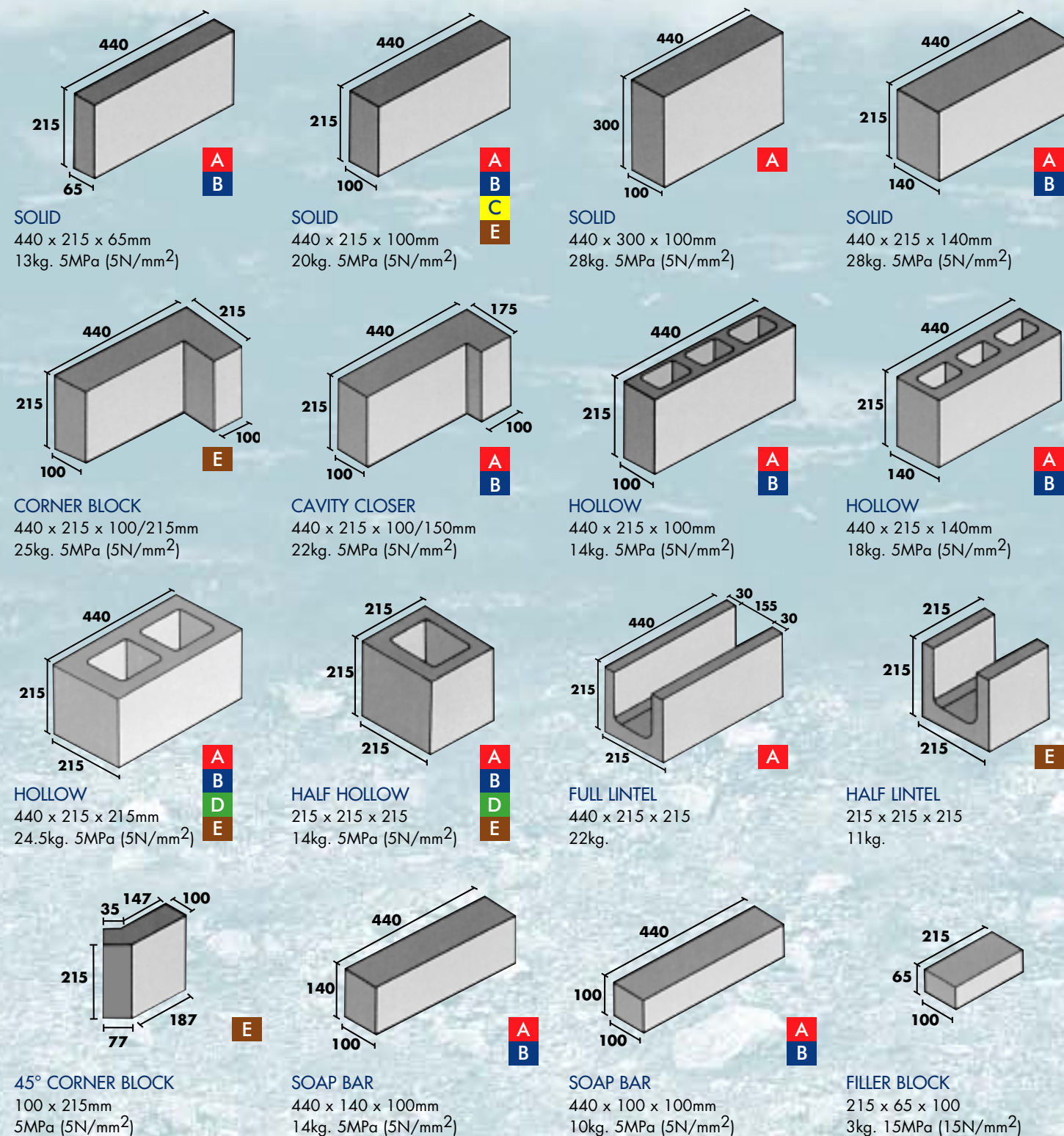
Roadstone are the leading producer of concrete blocks in Ireland. We manufacture to the highest quality standards including IS 20: 1987 and the NSAI quality management system I.S. EN ISO 9002.

Roadstone provide a range of benefits and solutions to our customers through our extensive and diverse range of concrete blocks and high strength units.

Roadstone are focused on customer service, product innovation, manufacturing expertise and technical support and we are pleased to advise on any special products and requirements.

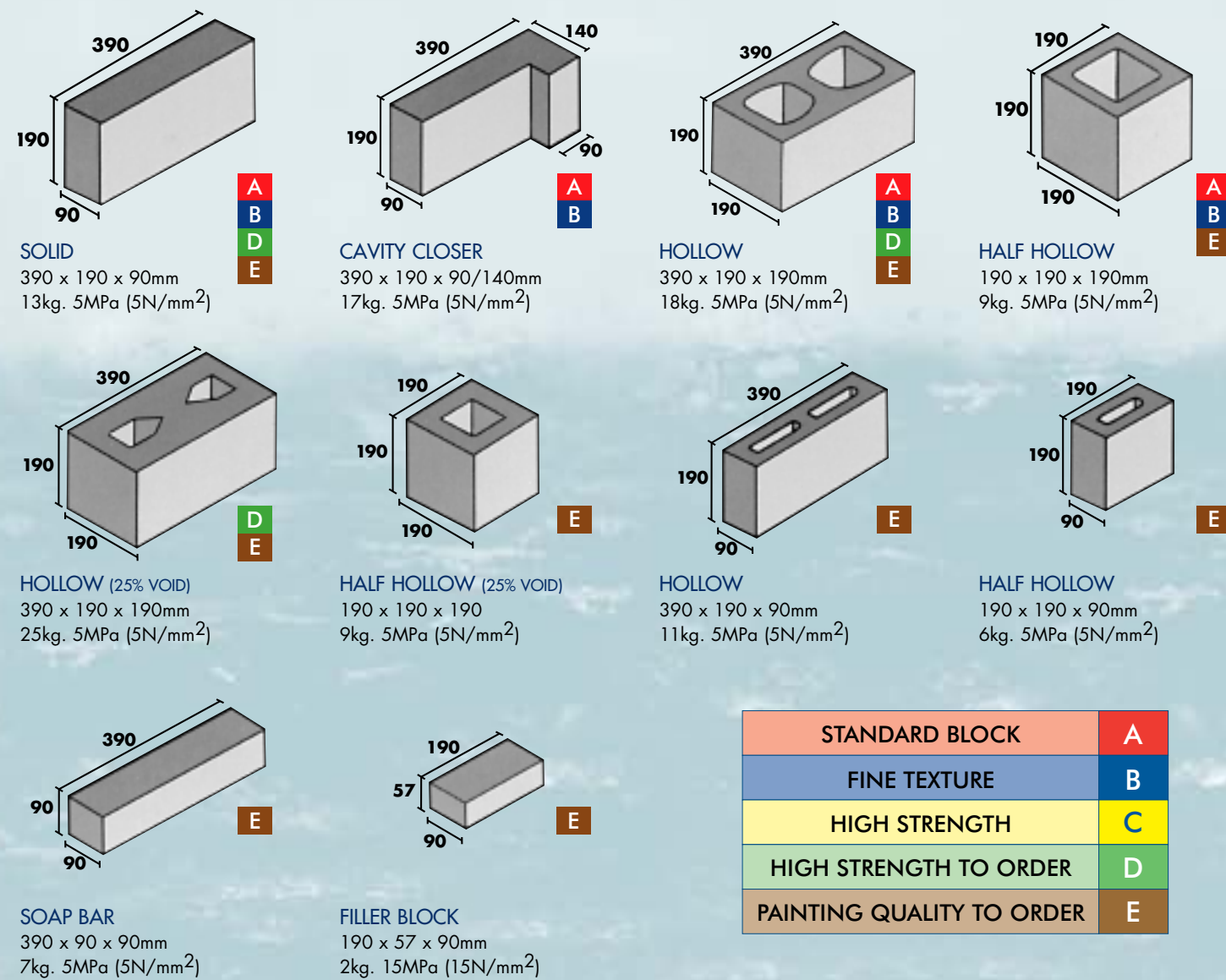
## 450 Range

Co-ordinating face size 450mm x 225mm - 9.88 blocks per sq. metre.



## 400 Range

Co-ordinating face size 400mm x 200mm - 12.5 blocks per sq. metre.

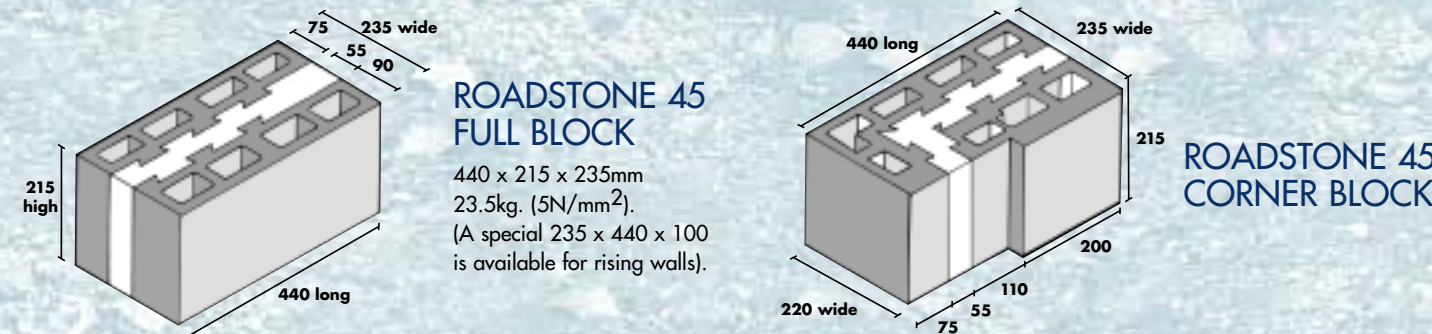


## Roadstone 45 block

Insulated range.

Only one operation required to build and insulate the wall.

- The Roadstone 45 Block has 55mm of built-in insulation.
- Time and labour costs are reduced by eliminating the fixing of internal insulation using timber batons.
- The Roadstone 45 wall gives the necessary U value (0.45 W/m<sup>2</sup> K) required by the building regulations



## Technical Information

The following information is given for the purpose of providing guidance with regard to compliance with the Building Regulations. All information contained within should be verified directly with the appropriate publication or derived from first principles.

### FIRE RESISTANCE

The Building Regulations Technical Guidance Documents, Part B gives guidance on determination of fire resistance of concrete block walls. Appendix A paragraph A1 (d) refers to the Building Research Establishments report "Guidelines for the construction of Fire-resisting structural elements" by WA Morris, REH Read and GME Cooke. Part II gives notional periods of fire resistance which are based on BS 5628: Part 3: 1985. This information is also included in IS 325: Part 2 1995. Code of Practice for the use of Masonry: Part 2 Masonry Construction.

### SOUND

Concrete Blocks are an excellent sound barrier because of their density. The sound insulation of a wall is related to the "Mass Law Curve." Outlined below is the approximate sound insulation that can be expected applying this law to Roadstone masonry products. The importance of good standards of solid mortar jointing cannot be overstressed if the desired standard of sound reduction is to be achieved. Failure to achieve the required reductions have largely been due to the presence of voids in the mortar jointing, a serious reduction in wall thickness due to poor detailing or careless chasing of services.

### SOUND INSULATION (dB Reduction)

Product	Concrete Masonry No finish	Standard Block- Heavyweight Plaster	Standard Block- Lightweight Plaster
90mm Solid	42	46	45
100mm Solid	44	47	46
140mm Solid	49	50	50
100mm Hollow	41	43	41½
140mm Hollow	43	46	45
190mm Hollow	46	51	50½
215mm Hollow	48	50	49

### THERMAL PROPERTIES

Typical thermal conductivity values (λ) for Roadstone Building Blocks of normal density concrete are 1.13 W/m K protected and 1.24 W/m K Exposed. Lightweight blocks have a Lamda value from 0.33 W/m K. These figures can be used in conjunction with the overall wall design to derive the total thermal resistance and correspondingly its U value. Thermal conductivity values quoted are related to the concrete density in accordance with table A3 of the CIBSE guide.