

External Walls

Data Sheet 2
November 2017

Uniclass
L3221 :A4
EPIC
F611 :X221
CI/SfB
Ff2 (Ajv)

Introduction

The versatility of aggregate concrete blockwork is an attribute which has been recognised for a considerable time. There are many examples of fine buildings which incorporate aggregate concrete blocks as either a facing or a background unit. CBA members produce an extremely wide range of blocks which enables designers to select quality products which can be used to satisfy exacting design, structural performance and durability requirements.

Wall Construction Types

The two main types of external wall construction are:

- Single leaf block walls
(190mm minimum width)
- Cavity walls
(90mm minimum width for each leaf)

Block Specifications

Blocks are available in a wide range of textures, finishes and shapes – see CBA Data Sheet 1 – A Guide to Selection & Specification. CBA members should be consulted for specific product data.

Special blocks are also manufactured to complete the extensive 'kit-of-parts':

- Typical face sizes are 440 x 215mm and 390 x 190mm
- Corresponding co-ordinating dimensions are 450 x 225mm and 400 x 200mm
- Blocks are available in compressive strengths from 2.9N/mm² to 40N/mm² (solid) and 2.9N/mm² to 22.5N/mm² (cellular and hollow). Common strengths are 3.6N/mm² and 7.3N/mm².

External Walls

Block Description

The choice of block will be influenced by the nature and quality of external appearance required:

Standard common blocks

Blocks suitable for general building work, offering excellent all round performance and normally available in 440 x 215mm face size. In addition to their loadbearing capabilities, they provide an excellent background for plastering and rendering as well as for fixings. This type of block is not normally intended for use in facing applications as variations in content and texture may occur.

Close textured/paint grade common blocks

Blocks manufactured with a close texture and suitable for direct painting.

Standard facing blocks

Blocks manufactured for applications where shape and texture consistency are of prime importance. Slight variations in colour may be discernible.

Architectural masonry facing blocks

Blocks manufactured to high standards of dimensional accuracy and consistency of colour and texture. The blocks are intended for use in situations where the visual appearance of the wall is of primary concern. The blocks are available in a range of colours and textures, finishes and shapes.

Good Practice Points

Successful design, specification and application of blocks for exterior applications (especially in the case of fair-face work) depends on the following:

- Dimensions of walls should be based on co-ordinating block sizes
- Movement should be controlled by the inclusion of movement joints and/or bed joint reinforcement appropriately positioned – see Data Sheet 12 'A Guide to movement control'
- High standards of workmanship should be encouraged
- Cavities should be kept free from mortar droppings and other debris
- A sample panel should be constructed to enable specifications and standards of workmanship to be agreed before construction commences
- Partially completed and new work should be protected at all times from inclement weather
- Special blocks should be used for lintels, sills and closing cavities etc.

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