

# Partitions and Internal Walls

## Data Sheet 9 November 2017

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

## Introduction

Aggregate concrete blocks are a durable and economic solution for partitions and internal walls in all types of buildings. Block partitions are robust, easily erected and compare favourably in cost terms with other types of partition construction.

### Types

Two basic face sizes of suitable blocks are manufactured:

- 440 x 215mm (work size)
- 390 x 190mm (work size)

Partitions using aggregate concrete blocks are non-loadbearing. Internal walls are loadbearing.

### Loadbearing

Can be used to support floors and other loads. A minimum thickness of 90mm is recommended.

### Non-loadbearing

A minimum thickness of 75mm is recommended.

### Sound Resisting

Blockwork partitions and internal walls to meet the requirements of Regulation E2 (Building Regulations for England & Wales) should be:

- 100mm lightweight aggregate (minimum density 1200 kg/m<sup>3</sup>) finished on both sides
- 75mm dense aggregate partition finished on both sides
- 90mm dense aggregate internal wall finished on both sides
- Any blockwork construction shown by laboratory test to achieve an  $R_w$  of 40dB

Blockwork partitions and external walls to meet the requirements of Section 5 of the Building Standards (Scotland) Regulations should be:

- 90mm dense blocks (density range 1800-2200kg/m<sup>3</sup>) with 13mm plaster or plasterboard with a mass of 8kg/m<sup>2</sup> on both sides
- Lightweight blocks with a minimum total mass of 90kg/m<sup>2</sup> and
  - only in conjunction with one of the examples in the BSD guidance document of generic separating wall construction
  - only when the wall/partition is non-loadbearing
- 100mm lightweight blocks (density range 1350-1600 kg/m<sup>3</sup>) with 13mm plaster or plasterboard with a minimum mass of 8kg/m<sup>2</sup> on both sides
- Concrete blocks with a minimum mass of 120kg/m<sup>2</sup> with 13mm plaster or plasterboard with a minimum mass of 8kg/m<sup>2</sup> on both sides
- Any construction shown by laboratory test to achieve an  $R_w$  of at least 40dB

### Site Practice

It is recommended that partitions are not toothed to intersecting walls, but tied at maximum 450mm vertical centres as this will help maintain the block bond in both elements. This detail can be used to form a movement joint when appropriate.

### Advantages

The other advantages of using aggregate concrete blocks for partition walls are:

**Sound insulation** – High levels of attenuation of airborne and impact sound can be achieved.

**Fixings** – Secure background for light, medium and heavy-duty fixings.

**Fire Resistance** – 1 hour always available. 2 hours easily achieved. Up to 6 hours possible.

**Finishes** – Excellent background for a wide variety of finishes.

**Robustness** – Excellent impact resistance before, during and after construction.

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