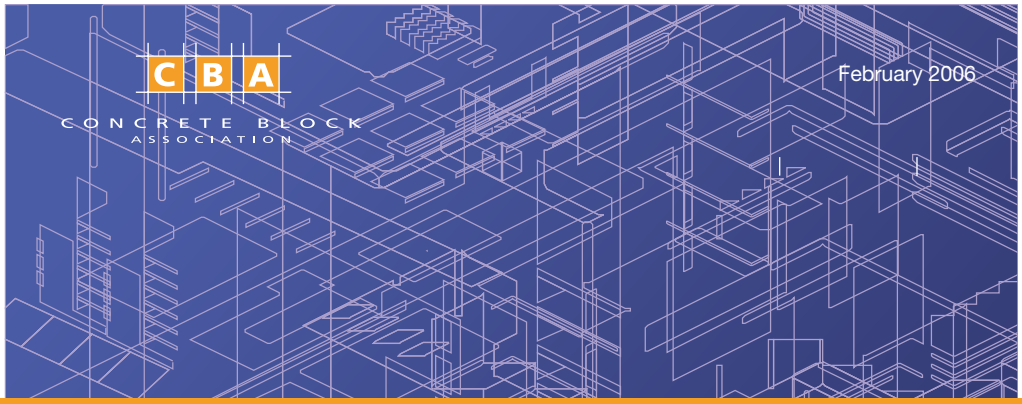


February 2006

Aggregate Concrete Blocks

PART L

Thermal Insulation from April 2006

Guidance for Designers and Users

Introduction

New measures to improve the energy efficiency of buildings have been announced by the Government.

- The aim is to meet the requirements of The Energy Performance of Buildings Directive (EPBD) which aims to further combat climate change and requires buildings to be better insulated and make use of more efficient heating systems.
- The changes to Part L (conservation of fuel and power) of the Building Regulations for England and Wales are applicable from **6th April 2006.**
- The revised Part L will also make air leakage pressure testing of buildings mandatory, thereby improving compliance with the regulations.
- The use of Robust Details for airtightness of dwellings may provide an alternative to routine testing, although at present the required details have not yet been developed.

This document gives guidance on compliance to satisfy the requirements of Building Regulation L1 (England and Wales) 2006.

Aggregate concrete block solutions

Although the performance values of the building envelope will depend on factors such as air permeability values, fuel type and heating efficiency it is likely that wall U-values of around 0.30 W/m^{2}K will be required. The following aggregate block solutions meet this level of performance and are applicable to any type of building.

Approved documents

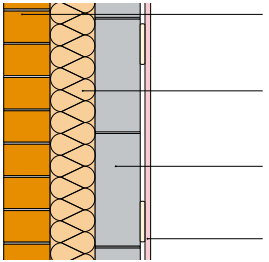
The new Part L Approved Documents are in 4 sections as follows:

Part L1 Housing	→	Approved Document L1A New dwellings
	→	Approved Document L1B Existing dwellings
Part L2 Non Dwellings	→	Approved Document L2A New buildings other than dwellings
	→	Approved Document L2B Existing buildings other than dwellings

A number of other publications are listed in the Approved Documents and are relevant to assess compliance.

The guidance in Approved Document L1A is limited to new dwellings with a total floor area not greater than 450m^2. For dwellings exceeding this size, compliance can be assessed using a calculation procedure known as the Simplified Building Energy Model. Conservatories with a floor area greater than 30m^2 have to comply with AD L1.

Solution 1 - U value = 0.30



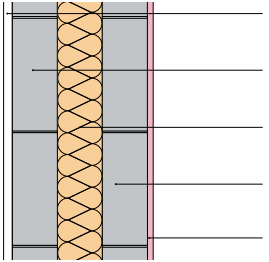
Outer leaf
Brick

Insulation
100mm Dritherm 34

Inner leaf
100mm Dense block

Finish
Plasterboard on dabs

Solution 2 - U value = 0.29



Outer finish
19mm Render

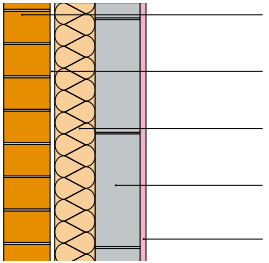
Outer leaf
100mm Dense block

Insulation
100mm Dritherm 32

Inner leaf
100mm Dense block

Finish
13mm Gypsum insulating plaster

Solution 3 - U value = 0.29



Outer leaf
Brick

Cavity
10mm

Insulation
90mm Springvale Platinum

Inner leaf
100mm Dense block

Finish
13mm Gypsum plaster