

# PART L 2010

## KEY CHANGES EXPLAINED



As part of the Government's long term plan to reduce carbon emissions, Part L 2010 of the Building Regulations has come into force this month.

The following is a brief summary of the changes. For further, in depth, information, the SIG Insulations comprehensive Guide to Part L will be available shortly – you can order your free copy now via our website.

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### New Build Part L1A & L2A

### New Limiting Fabric U values – Part L1A (New Dwellings)

- 25% less CO<sub>2</sub> emissions than 2006.

This challenging Part L (ADL1A) target corresponds with Code for Sustainable Homes Level 3. It is a 'flat' rate which applies to all private new build dwellings.

For new non-domestic buildings (ADL2A) an 'aggregate' approach is taken based upon building type, meaning some will require more than 25% reduction in CO<sub>2</sub> and some less.

Elements	2006	2010
Roof	0.25	0.20
External Wall	0.35	0.30
Party Wall	N/A	0.20
Floor	0.25	0.25
Windows	2.20	2.00

Part L2A (New Non-Dwellings) Limiting Fabric U values are unchanged from 2006

## Greater emphasis on quality of construction

Aiming to improve quality of construction in order to close the gap between designed and delivered performance in new buildings, the most significant changes are:

## What the changes mean

## Existing Buildings Part L1B & Part L2B New U value requirements

### Mandatory 'Design' as well as 'As Built' Submissions

A SAP/SBEM calculation and complete list of specifications must now be submitted to Building Control at design stage before work commences, along with the additional calculation once work is complete.

### Air Permeability - More Pressure Testing

Pressure tests should be carried out on three units of each dwelling type or 50% of all instances of that dwelling type, whichever is smaller. However, a new penalty within SAP 2009 applies to untested dwellings which may influence builders to test all units rather than just a selection.

### Thermal Bypass - Cavity Party Walls

Full fill cavity insulation and effective sealing is now required in order to claim zero heat loss. Alternatively an appropriate insulating seal can be used to provide a U value of 0.02 W/m<sup>2</sup>K.

### Thermal Bridges – 0.08 for ACDs no longer an option

As from April 2011, claiming 0.08 W/m<sup>2</sup>K Y value if using Accredited Construction Details (ACDs) will no be longer possible, due to the introduction of the new Government Enhanced ACD Scheme which requires third party site checks. Instead, three method options are offered to state the Y value, achieving more accurate thermal bridging detail.

### Thermal bridging delay within SAP

Until the Government Enhanced ACD & ACD Schemes are approved in 2011, thermal bridging will continue to follow current SAP 2005 requirements.

NB: Calculated linear bridges requiring the length of each individual building junction to be measured will be a new requirement in 2011.

- Significantly better U value performance for all new buildings
- Increased insulation thickness and wider construction footprints
- The need to embrace innovative products and systems to aid compliance
- Much earlier involvement of specialists for the necessary technical input
- Mandatory 'Design stage' and 'As built' SAP/SBEM calculations
- New, more complicated and in depth calculation tools such as SAP 2009
- Greater complexity with thermal bridges and added risk of failing SAP/SBEM
- Additional emphasis on quality of construction and on site guidance
- More stringent on-site testing and checking regimes
- New requirements to insulate swimming pool walls and floors

New Thermal Elements	2006	2010
Wall	0.30	0.28
Pitched roof (ceiling level)	0.16	0.16
Pitched roof (rafter level)	0.20	0.18
Flat roof	0.20	0.18
Floors	0.22	0.22

Insulation is still the most cost effective way of improving the performance of a building.

SIG Insulations can help you every step of the way.

Not only do we offer the widest product ranges via our nationwide branch network, but also unrivalled specialist expertise and a range of technical services including:

- Specification support
- Impartial interpretation of the new Part L Regulations
- Guidance in achieving compliance in your projects
- Technical services including:
  - The two mandatory SAP calculations (Design and As built)
  - Higher performing U values (BBA accredited) calculations and advice
  - Y values calculations
  - Thermal bridging quantity take-off calculations
  - Thermal modelling to calculate bespoke Y values, e.g. Y values achieving 0.04.
  - Pressure testing – advice and onsite testing.

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