

Building Control Guidance Note

NEW REGULATIONS FOR CONSERVATION OF FUEL AND POWER IN EXISTING DWELLINGS – L1B

DARTFORD BUILDING CONTROL

This guidance note highlights the main changes to the Building Regulations relating to the Conservation of Fuel and Power in Existing Dwellings – Approved Document L1B. These came into force on the 6 April 2006.

The typical construction details specified are only one way to comply with the guidance in Approved Document L1B.

Key changes to U-values -

Element	New U-value	Typical construction detail meeting new requirement
Walls	0.30	Brick outer skin with Thermalite or Celcon block inner leaf and a 90mm cavity filled with Rockwool/Dritherm or similar.
Ground floors	0.22	Concrete floor with 75mm thick Celotex, Kingspan or similar approved.
Floor over an unheated space (an integral garage etc)	0.22	Timber floor with 120mm of Jablo or 150mm of Jabfloor.
Pitched roof with insulation at ceiling joist level	0.16	100mm fibreglass between joists with a further 170mm fibreglass laid across – to give 270mm total thickness
Pitched roof with insulation following rafters	0.20.	105mm of Kingspan between the rafters and 25mm of insulation fixed across the face to give 130mm total thickness.
Pitched roof to Loft conversions with the insulation following rafters	0.20	As previously described for Pitched roof with insulation following rafters.
Flat roofs	0.20	Warm deck construction comprising 96mm of Kingspan TR31 over timber joists with an additional 30mm of Kingspan TP10 between the rafters
Windows, roof windows and rooflights	1.8	Double glazing with a 16mm air gap, argon filled and a “soft” low-E coating or with a Band D Window Energy Rating
Doors with more than 50% glazed	2.2	Refer to the manufacturer for specific construction.
Other doors	3.0	Refer to the manufacturer for specific construction.

Also note that :-

1. To use the above construction details the area of the door, windows and roof-lights taken together should not exceed 25% of the floor area of the extension plus the area of the doors and windows which no longer are exposed as a result of the extension work.
2. For an alternative approach refer to Approved Document L1B, section1, paragraph 18.
3. New boilers must have a minimum SEDBUK value of 86% efficiency.
4. The relaxation for small extensions no longer applies.
5. The above U Values are as detailed in Approved Document L1B, Section 2, Table 4, column (a).

Internal Lighting

A way of showing compliance would be to provide light fittings that only take lamps having a luminous efficacy greater than 40 lumens per circuit – Watt.

In the area affected by building work fixed energy efficient light fittings shall be provided that number not less than:

- 1 One per 25m² of dwelling floor area (excluding garages) or
- 2 One per 4 fixed lighting fittings

External lighting (fixed to building)

This includes lighting in porches, but not in garages or carports. The recommendation is that all external lighting should automatically extinguish when there is enough day light (or when they are not needed at night) and have sockets that can only be used with lamps having a luminous efficiency greater than 40 lumens per circuit-watt.

Heating and Hot Water Controls

Where a heating or hot water system and its controls are to be installed they shall have an efficiency not less than that recommended for its type in the Domestic Heating Compliance Guidance.

The heating and hot water system shall be commissioned to ensure that they are operating at maximum efficiency. A notice shall be provided to the Local Authority confirming that the building services have been commissioned in accordance with a procedure approved by the Secretary of State. One method of complying with the regulations would be to use an approved competent person scheme.

Limiting air leakage

The revised regulations call for reasonable provisions to limit air leakage, and allows for this to be demonstrated by pressure testing the completed building. Fortunately compliance can also be demonstrated by following "robust construction details", many of which are already accepted practice. The most notable requirements are -

1. The cavity wall insulation must be taken down below damp course level, finishing at the same level as the underside of the floor slab insulation.
2. The cavity wall insulation and roof insulation must meet at the top of the wall (the detail used must also allow ventilation to be maintained if appropriate).
3. Cavity wall insulation must be carried up to the full extent of gable walls.
4. Floor joists etc must be set on joist hangers (and not built into the wall itself).
5. A 25mm upstand of insulation must be provided around the perimeter of floors, including where the floor slab touches outside wall (usually at door thresholds).
6. All cavity closures must be insulated