

# What is Document L & Why has it been Amended ?

## WHAT IS DOCUMENT L ?

Domestic dwellings are said to use about 25% of the energy consumed in the United Kingdom. Therefore over the last few years the building regulations have had a new section called Section L or Document L and this is titled conservation fuel and power. Every few years Document L is reviewed and the requirements for conservation of fuel and power are increased. Some years ago, perhaps four or five years ago, the building regulations required all houses to be built with double glazing and limited the window areas in houses. If you wanted to have large windows you had to do things like introduce Pilkington K into them. What's happened recently is that Document L has been tightened again for buildings and a whole series of changes have been introduced, including cavity wall insulation, loft space insulation, floor insulation etc. Building details generally have changed with the objective of cutting down the energy requirement.

## WHY HAS DOCUMENT L BEEN AMENDED ?

The short answer - is as a result of the Kyoto Protocol.

The Kyoto protocol was signed at the earth summit in Kyoto, which is in Japan. The British government and many other governments signed up to a reduction in carbon dioxide emissions to the pre 1990 level. The British government is committed to reduce carbon dioxide to pre 1990 levels by the year 2010 and to continue to reduce emissions, which cause global warming.

Carbon dioxide is caused by the burning of fossil fuels, that's coal, gas, oil or similar to make electricity for use by householders or businesses. Motor cars also burn fossil fuels in the form of petroleum, which produces carbon dioxide. The government can achieve its targets by a variety of measures, one is to insulate homes so that the energy required by a home is much reduced, the other is to tighten up on emission controls from motor cars, hence the recent tax changes to company cars and similar. There are a whole range of other efforts to reduce carbon dioxide emissions including wind power, solar power and a revisiting of nuclear power. The objective is to reduce the amount of carbon based products that are actually burned letting carbon dioxide into the atmosphere and to reduce global warming.

The amendments are Effective 1st April 2002 - all replacement window installations in England & Wales will be subject to BUILDING REGULATIONS. This new regulation in particular affects the minimum levels of insulation that replacement windows must have when fitted in your home. Levels of insulation are measured as U values. The lower the U value, the better the insulation level. In future what we may have in the past have referred to as "normal" double-glazing - i.e. two pieces of glass separated by a spacer bar is very unlikely to conform to building regulations. To get the required level of insulation it's almost certain some sort of LOW E glass (typically Pilkington K in the UK - although there are other brands) will have to be used. It may also be necessary for the sealed double glazed units to be Gas Filled (probably Argon).

## The minimum U values

PVCu or timber replacement windows should not have a U value higher than 2.0 W/m<sup>2</sup>K

Metal windows (Aluminium) replacement windows should not have a U value higher than 2.2 W/m<sup>2</sup>K

All orders placed after 1st April 2002 needs to comply with the new regulations.

Orders signed before 1st April 2002 will not fall under the regulations provided that the installation is carried out before 1st July 2002.

## Exceptions to new Doc L

Conservatories will not be included when the standard commences provided they are separated from the rest of the building (for example by doors) or they are unheated.

Historic buildings are expected to "achieve the best they can".

Also when replacing a broken sealed unit, it can be replaced "like for like". The regulations apply to the entire window replacement.

# **DOCUMENT L Questions & Answers**

When Document L comes into force the installation of double glazed units manufactured with standard float glass will not be acceptable in most situations.

In the case of replacements, all windows have to be double-glazed with a low-E glass, and meet a certain U-value. By windows we mean the frame and double-glazed unit combined. If only the double-glazed unit is to be changed this can be done on a like for like basis.

## **What is Document L ?**

Document L is the part of the Building Regulations for England & Wales that sets the standards of energy efficiency in buildings.

## **Why are the changes being introduced ?**

As part of the Kyoto agreement, the UK Government has made commitments to reduce emissions of greenhouse gasses, such as carbon dioxide, which are harmful to the environment.

## **Do the changes apply to all buildings ?**

The previous version of Document L covered construction of new dwellings (houses) and non domestic buildings, such as offices and public buildings. The new Document L still covers these but goes much further by addressing work on existing buildings, such as replacement windows installed as a home improvement.

## **Do the requirements extend to repair work on existing windows ?**

The new Document L only applies when the whole window is to be replaced. Replacement of just the glass or part of a damaged frame is exempt from the regulations and the replacement can be carried out on a like for like basis.

## **Are there any exceptions ?**

Listed properties and buildings in conservation areas may be exempt as are display windows and shop entrance doors. Also replacement doors that have a glazed area of less than 50% are not required to meet the new u-values.

## **Do the new requirements apply to conservatories ?**

As long as a conservatory is unheated and separated from a house, it does not have to comply with Document L

## **Why should I bother to comply ?**

Complying with Building Regulations is a legal requirement.

## **When will the new Document L take effect ?**

The new Document L will come into force from 1st April 2002. In the case of home improvement work, all windows replaced after this date will have to comply with the new standards.

For new build, all buildings that have had their plans approved before this date may be constructed to the previous standards although a time limit on constructing may be enforced.

### What is a U-value ?

The U-value measures the rate at which heat is lost through a material. The lower the U-value, the lower the amount of heat lost and the lower the amount of energy wasted through the window. U-values are measured in Watts per square metre per degree of temperature difference (W/M<sup>2</sup>k).

### What U-values should my windows be ?

**PVC-U and Timber**  
**2.0 W/m<sup>2</sup>K**

**Aluminium and Steel**  
**2.2 W/m<sup>2</sup>K**

### What is Low-E glass ?

Low-E stands for low-emissivity. The double glazed unit has one of its inside faces lined with a special coating that lets heat and sunlight filter through but reflects any heat trying to escape back into the room.

The Benefits of Low-E glazing are :- Reduced heat loss, eliminates cold spots & reduced condensation. Low-E glass is available in Normal float, Toughened & Laminated glass.

### How will Document L be enforced ?

New build will be monitored in the existing way, through building control approval. In the case of replacement windows as a home improvement, approval could be sought through building control but this is likely to be very time consuming and expensive. The preferred method is via the self - certification scheme Fensa.

#### **The FENSA Scheme**

over one million installations of replacement glazing happen every year. It would be impractical for all of these to go through the Building Regulations application process. Fensa has been set up to allow installation companies that meet certain criteria to self-certify that their work complies with the Building Regulations. The scheme is known as FENSA which stands for the Fenestration Self-Assessment Scheme.

A sample of the work of every installer will be checked by FENSA appointed inspectors to ensure standards are maintained. FENSA will also inform local authorities of all completed installations and issue certificates to householders confirming compliance.

Contact Fensa direct on 020 7207 5874.

