

# J / H / A / I

Quick guide to the 2022  
Building Regulations Changes



V1.05.07.2022

/ ALL THE  
APPROVAL  
YOU NEED

Registered office:  
3 George Street, West Bay, Bridport, Dorset DT6 4EY  
Company Reg No 3980572 / VAT Reg No 414 6714 07



# Quick guide to the 2022 changes to Building Regulations as they affect existing domestic dwelling extensions and alterations

## Introduction

The governments Future Homes standard takes its first step with the implementation of the 2022 changes to Parts F and L of the Building Regulations. These changes affect all applications submitted to your Building Control Body on or after the 15th June 2022.

There are transitional arrangements for applications submitted before the 15th June where the previous versions of the Parts F and L will apply to the work. However if the work has not commenced before 15th June 2023 then the work will be subject to the new requirements automatically on that date.

## Headline issues to note

There are some headline issues that we think you should be aware of and may affect work that you have been priced for, or have priced before the critical 15th June date. These changes may apply additional requirements to the work that ultimately may affect that pricing. It is important to note that this only affects projects you have submitted to your Building Control Body on or after the 15th June.

This document is focussed on the changes to Part F, dealing with Ventilation and Part L, dealing energy efficiency issues. We have also focussed on the changes as they relate to the extension and alteration of domestic dwellings only.

## Key changes to Part F – Ventilation in Dwellings

1. Trickle (background) ventilators must have been “equivalent area” performance tested to BS EN 13141. The ventilators must be marked with their equivalent area to aid verification
2. Windows with secondary opening i.e. Night latches, cannot be used in place of trickle (background) vents
3. Open plan kitchen dining areas will need a minimum of 3 trickle ventilators in the room
4. Minimum requirement for trickle ventilators to habitable rooms in extensions and loft conversions is now 12000mm<sup>2</sup>
5. Minimum requirement for wet rooms in extensions and loft conversions is the required mechanical extract fan rate and 5000mm<sup>2</sup> of tickle ventilator
6. All replacement windows must have trickle ventilators with equivalent area of 8000mm<sup>2</sup> in habitable rooms and kitchens and 4000mm<sup>2</sup> in bathrooms. Doors should be undercut by 10mm to the finished floor level
7. Flexible ducts for extractors are now limited to a maximum of 1.5m in length and must be installed to ensure flow resistance is minimised
8. Improving energy efficiency measures in existing dwellings requires an assessment of ventilation provision and a new checklist is provided in the approved document
9. Information about new ventilation systems must be provided to the homeowner when work is undertaken to an existing dwelling. The Governments Home User Guide can be used for this <https://www.gov.uk/government/publications/home-user-guide-template>

## Key changes to Part L – Energy Efficiency in Dwellings

10. New, replacement, thermal elements, and glazing need to meet new U-Values
11. The maximum opening areas limit of 25% of the floor area of extension plus any existing covered openings remains.
12. Where sub-glazed SAP calculations or area weighted U value calculations are required these must be submitted before starting works.
13. Ground floor perimeter upstand insulation is required as 25mm standard
14. There are changes to efficiency requirements when replacing or extending the existing space heating systems in an existing dwelling. A minimum gas boiler SEDBUK rating of 92% is required with enhanced controls; additional requirements for combi boilers are also included
15. Replacing a flat roof waterproofing membrane now requires require upgrading of the insulation to achieve a 0.16 U value
16. Exempt structures such as conservatories and porches under 30m<sup>2</sup> will not be classed as exempt if they are provided with any form of fixed heating.

## Changes to U values for extensions and loft conversions

Whilst they have their critics U values remain one of the principle tools that the building regulations use to limit heat loss. Unlike new build dwellings, where U values are expressed as a target in a wider energy efficiency calculation for the dwelling, U values for extensions and alterations to existing dwellings are given as fixed figures which must, in general, be achieved.

In simple terms a U value is the term used to describe the thermal performance of all the component parts of a thermal element, for instance an external wall. Its not just about the insulation, albeit that is the most important part. The calculation of a U value involves a measure of how all the component parts contribute to the element's performance. The key thing to remember is that when the U value decreases this means that less energy is able to travel through the materials; so the lower the U value the better the thermal performance.

Thermal element	Value for applications submitted <15th June	Value for applications submitted >14th June
External wall	0.28	0.18
Floor	0.22	0.18
Roof	0.16-0.18	0.15
Windows (including roof windows and curtain walling)	1.6	1.4
Timber windows	N/A	1.6
External doors >60% glazed	1.8 (Band E)	1.4 (Band C)
Other external doors	1.8 (Band E)	1.4 (Band B)
External fire doors	N/A	1.8
Roof light and any kerb/ upstand	1.6	2.2
Rooflight upstand built on site	N/A	0.35

## Indicative insulation thickness's for various standard thermal elements

The tables below provide some general guidance as to material requirements to achieve the new U values for extensions and alterations to existing dwellings. These are indicative only and should not be relied upon. Installers must satisfy themselves as to a products fitness to achieve the required standard.

Thermal element and Insulation type	Element type and Insulation thickness
<b>Ground floor</b>	Concrete slab/beam and block, assuming a P/A ratio of 1 (other ratios may require additional insulation)
PIR (0.02 conductivity)	100mm
EPS	100mm plus 60mm
<b>Ground Floor</b>	Timber, as above for P/A ratio, with Joists at 400mmc/c
PIR (0.02 conductivity)	150mm
Mineral wool (0.04 conductivity)	200mm
<b>External walls</b>	Masonry, assuming inner leaf lightweight blocks maximum 0.15 conductivity and plasterboard on dabs internal finish
PIR (0.02 conductivity)	100mm + 50 mm residual cavity
Mineral wool batts (0.032 conductivity)	150mm or 100mm with 52.5 insulated plasterboard
Mineral wool batts (0.37 conductivity)	150mm with 10mm PIR internally
<b>External Walls</b>	Timber Frame, with any external finish with a 12.5mm plasterboard internal finish and 100mm studs
PIR (0.02 conductivity)	100mm between and 50mm over
Mineral wool (0.032 conductivity)	100mm between and 60mm PIR over
<b>Roofs</b>	<b>Warm deck flat roof</b>
PIR (0.02 conductivity)	140mm
	<b>Cold deck flat roof</b>
PIR (0.02 conductivity)	100mm between and 60mm under
Mineral wool (0.04 conductivity)	100mm between and 90mm under
	<b>Pitched roof with insulation at rafter level</b>
PIR	100mm between and 60mm under
	140mm over rafters
	75mm between and 75mm over
Multifoil & PIR	Dependant on type and location of multifoil
	<b>Pitched roof with insulation at ceiling joist level</b>
Mineral wool (0.04 conductivity)	300mm; 150mm between and 150mm over
PIR (0.02 conductivity)	100mm between and 60mm under

### Disclaimer

JHAI takes no responsibility for the accuracy of any of the information contained within this guidance note and installers must always satisfy themselves that the required U value standard will be achieved. Any insulation products included within this document are for indicative purposes only and other insulation products are available that may achieve the required standard. JHAI is an independent licensed building control body and have no affiliations with the manufacturers of any products mentioned in this document.