

Building Regulations (England)

Approved Documents L & F

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the home improvement group

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Install with confidence.



In the shift towards a Future Buildings Standard, the government has introduced a range of changes to the Building Regulations, including a mandatory 30 per cent cut in carbon for all new homes and a 27 per cent cut for other buildings, including offices and shops†.

With the impact of climate change and the increase in urbanisation, we now not only need to ensure the homes of the UK are warm, energy efficient and provide exceptional thermal performance, but that they are also well ventilated for cleaner, cooler air.

Changes to Part L and Part F of the Building Regulations in England are being introduced on the 15th June 2022, to ensure all new and renovation projects are on-spec for thermal efficiency, energy efficiency and ventilation capability.

†Source: RIBA J. ribaj.com / January 2022

What this means to you, the Installer.

The information we have provided within this document will help you understand what is required to be compliant with the new Regulations.





Approved Document L and Approved Document F will outline the criteria required for domestic, non-domestic, new-build and renovation project buildings. Part L focuses on the energy efficiency levels and the thermal performance of the building, set to reduce the impact on fuel usage, whilst Part F focuses on the ventilation performance, which can be as simple as how many windows can open within a property, to minimising the ingress of external pollutants and the proper installation of ventilation systems. Therefore, when installing windows and doors, you will need to ensure they are approved to the new specifications.

Our products and systems are obviously key to the compliance of these new Regulations, so if you have any queries regarding design, our products, or even the Regulations themselves, our Customer Services, Sales or Technical Teams are always here to help and support you.

What we've done to meet the new Regulations.

Conserving energy (Part L)

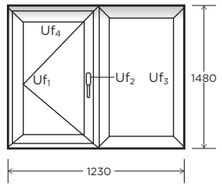
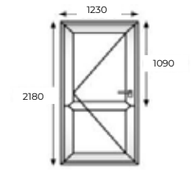
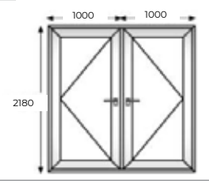
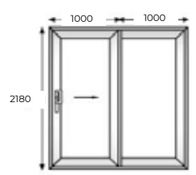
At Polyframe, we are proud to be a responsible manufacturer. That means we take changes in Regulations seriously – to ensure we're compliant, you're compliant and your customers enjoy products that meet the current standards. Our Rehau and Duraflex profiles are manufactured using the highest quality materials but it's important to understand how glazing can make a significant difference to how the completed window performs.

Our glazed windows have achieved an 'A' Rating and 'U' Values that meet the standards. We have created the following tables to help you identify what's required to ensure your completed product is compliant.

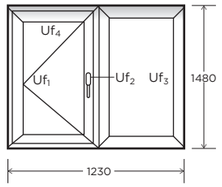
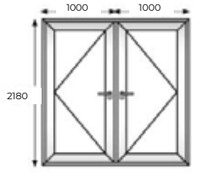
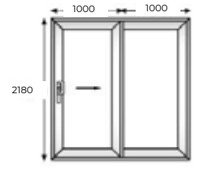
It's also worth noting that the new Part L Regulations for New Build properties focus on 'U' values, whilst Renovation Properties will be assessed on Energy Ratings or 'U' Values.

Part L - Compliance declaration

Replacement or extensions to existing dwellings

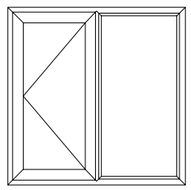
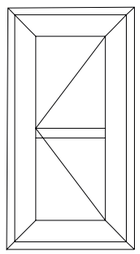
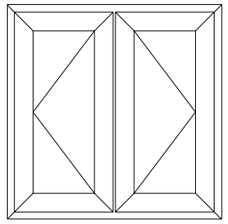
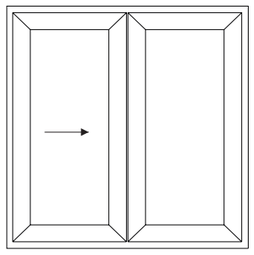
REQUIREMENT	WINDOW / DOOR DESIGN	REHAU SYSTEM		DOUBLE GLAZED UNIT REQUIRED $U_{glazing}$ VALUE	WER / DSER
U_{window} VALUE 1.4 W/m²K		REHAU TOTAL 70c	FULLY REINFORCED	1.2 W/m²K	A
			STANDARD REINFORCED	1.3 W/m²K	
			UN-REINFORCED	1.3 W/m²K	
		REHAU TOTAL 70s	FULLY REINFORCED	1.2 W/m²K	
			STANDARD REINFORCED	1.3 W/m²K	
			UN-REINFORCED	1.3 W/m²K	
		REHAU RIO T70c	FULLY REINFORCED	1.2 W/m²K	
			STANDARD REINFORCED	1.3 W/m²K	
			UN-REINFORCED	1.3 W/m²K	
		REHAU RIO T70s	FULLY REINFORCED	1.2 W/m²K	
			STANDARD REINFORCED	1.3 W/m²K	
			UN-REINFORCED	1.3 W/m²K	
		REHAU T70 Tilt/Turn	FULLY REINFORCED	1.2 W/m²K	
			STANDARD REINFORCED	1.3 W/m²K	
			UN-REINFORCED	1.3 W/m²K	
U_{door} VALUE 1.4 W/m²K		T70c RESIDENTIAL DOOR	FULLY REINFORCED	1.3 W/m²K	B
			STANDARD REINFORCED	1.3 W/m²K	
		T70s RESIDENTIAL DOOR	FULLY REINFORCED	1.2 W/m²K	
			STANDARD REINFORCED	1.3 W/m²K	
U_{door} VALUE 1.4 W/m²K		T70c FRENCH DOOR	FULLY REINFORCED	1.2 W/m²K	B
			STANDARD REINFORCED	1.3 W/m²K	
		T70s FRENCH DOOR	FULLY REINFORCED	1.2 W/m²K	
			STANDARD REINFORCED	1.3 W/m²K	
U_{door} VALUE 1.4 W/m²K		AGILA PATIO DOOR	FULLY REINFORCED	1.0 W/m²K	B
			STANDARD REINFORCED	1.2 W/m²K	

New Build

REQUIREMENT	WINDOW / DOOR DESIGN	REHAU SYSTEM		DOUBLE GLAZED UNIT REQUIRED $U_{glazing}$ VALUE
U_{window} VALUE 1.2 W/m²K		**REHAU TOTAL 70c**	STANDARD REINFORCED	1.1 W/m²K
			UN-REINFORCED	1.1 W/m²K
		REHAU TOTAL 70s	STANDARD REINFORCED	1.1 W/m²K
			UN-REINFORCED	1.1 W/m²K
		REHAU RIO T70c	STANDARD REINFORCED	1.1 W/m²K
			UN-REINFORCED	1.1 W/m²K
		REHAU RIO T70s	STANDARD REINFORCED	1.1 W/m²K
			UN-REINFORCED	1.1 W/m²K
		REHAU T70 Tilt/Turn	STANDARD REINFORCED	1.1 W/m²K
			UN-REINFORCED	1.1 W/m²K
U_{door} VALUE 1.2 W/m²K		**T70c RESIDENTIAL DOOR**	STANDARD REINFORCED	1.1 W/m²K
		T70s RESIDENTIAL DOOR	STANDARD REINFORCED	1.1 W/m²K
U_{door} VALUE 1.2 W/m²K		T70c FRENCH DOOR	STANDARD REINFORCED	1.1 W/m²K
		T70s FRENCH DOOR	STANDARD REINFORCED	1.1 W/m²K
U_{door} VALUE 1.2 W/m²K		AGILA PATIO DOOR	STANDARD REINFORCED	1.1 W/m²K

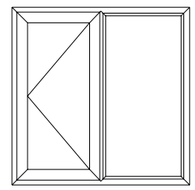
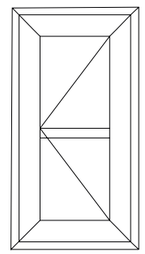
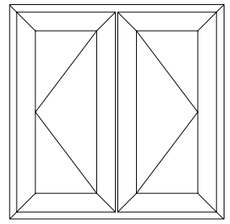
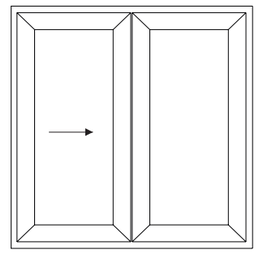
Part L - Compliance declaration

Replacement

REQUIREMENT	WINDOW / DOOR DESIGN	REINFORCING SPECIFICATION	REQUIRED U GLASS	WER / DSER
U_{Window} VALUE 1.4 W/m²K	 5 Chambered Casement	Transom/Mullion only	1.2	A
U_{door} VALUE 1.4 W/m²K	 Resi Door (>60% glass)	Outerframe/Sash Jambs	1.2	B
U_{door} VALUE 1.4 W/m²K	 French Door	Outerframe/Sash Jambs	1.2	B
U_{door} VALUE 1.4 W/m²K	 Patio	Outerframe/Sash Jambs	1.2	A

Glass Specifications: 1.2: K Softcoat

New Build

REQUIREMENT	WINDOW / DOOR DESIGN	REINFORCING SPECIFICATION	REQUIRED U GLASS
Limiting U window value 1.6W/m2k Notional U value 1.2W/m2k	 Casement	Transom/Mullion only	1.1
Limiting U window value 1.6W/m2k Notional U value 1.2W/m2k	 Resi Door	Outerframe/Sash Jambs	1.0
Limiting U window value 1.6W/m2k Notiional U value 1.2Wm2k	 French Door	Outerframe/Sash Jambs	1.0
Limiting U window value 1.6W/m2k Notional U value 1.2W/m2k	 Patio	Outerframe/Sash Jambs	1.0

Glass Specifications: 1.1: Pilkington S1/Planitherm one



AD L: Energy efficiency - New dwellings

The Notional dwelling Target 'U' Values for Windows and Doors are laid out in Table 1.1 of the Approved Document L.

The notional method enables Architects to trade off 'U' values against other materials in the dwelling as long as they are within the limiting 'U' values.

Table 1.1 from Doc L

DESCRIPTION	TARGET 'U' VALUE
Windows	1.2 W/m²K
Doors with glazed area greater than 60%	1.2 W/m²K
Other doors	1.0 W/m²K

The lowest specification 'U' Value allowable referred to as the Limiting 'U' Values are shown in Table 4.1.

Table 4.1 from Doc L

DESCRIPTION	LIMITING 'U' VALUE
Windows	1.6 W/m²K
Doors	1.6 W/m²K



AD L: Energy Efficiency - Existing Dwellings

'U' Values, Window Energy Ratings (WER) and Doorset Energy Ratings (DSER) of replacement windows and doors must be both:

- No worse than that of the element being replaced
- Meet the limiting standards in Table 4.2 (Lowest specification of 'U' Value or WER/DSER allowable)

Table 4.2 from Doc L

DESCRIPTION	'U' VALUE	WER/DSER
Windows	1.4 W/m²K	B
Doors with glazed area greater than 60%	1.4 W/m²K	C
Other doors	1.4 W/m²K	B

'U' Values, Any windows and doors replaced will need to be at least the level of performance detailed in Table 4.2 above.

Fresher, cleaner indoor air Part F

New Yale trickle vents are fitted to all our profiles to satisfy Part F Regulations. Designed and developed in the UK, Yale's SlimVent allows an appropriate amount of air to pass through the window, helping to remove stale air and reduce condensation and mould, as well as enabling people in cities or near busy roads to benefit from ventilation without having to open their windows.



Yale SlimVent

- 10 Year Mechanical Guarantee
- 12 Month Surface Finish Guarantee
- BRE Tested to EN13141-1: 2019 Ventilation for Buildings and BS EN ISO 10140-1 Acoustics
- Slim, attractive design
- Tilt feature, 30, 60 or 90 degrees
- Built-in fly screen

AD F: Ventilation - New Dwellings

Table 1.7 from Doc F

ROOM TYPE	MINIMUM EQUIVALENT AREA OF BACKGROUND VENTILATORS FOR DWELLINGS WITH MULTIPLE FLOORS	MINIMUM EQUIVALENT AREA OF BACKGROUND VENTILATORS FOR SINGLE STORY DWELLINGS
Habitable Room (see note 2 & 3)	8,000mm²	10,000mm²
Kitchen (see note 2 & 3)	8,000mm²	10,000mm²
Utility Room	NO MINIMUM	NO MINIMUM
Bathroom (see note 4)	4,000mm²	4,000mm²
Sanitary Accommodation	NO MINIMUM	NO MINIMUM

The use of this table is not appropriate in the following situations or conditions and expert advice must be sought.

1a) If the dwelling has only one exposed facade (e.g. within a multi-storey building).

1b) If the dwelling has 70% of its openings on the same facade.

1c) If a kitchen has no windows or external facade where a ventilator could be installed.

2) Where a kitchen and living room accommodation are not separate rooms (i.e. open plan), no fewer than three ventilators of the same equivalent area as for other habitable rooms should be provided within the open plan space (8,000mm²).

3) The total number of ventilators installed in the dwelling's habitable rooms and kitchen/s should be no fewer than five, except in one bedroom properties where there should be no fewer than four.

4) If a bathroom has no window or external facade through which a ventilator can be installed, the minimum equivalent area specified should be added to the ventilator sizes specified in nearest adjoining rooms. (i.e. 8,000mm² increased to 12,000mm2 and 10,000mm² increased to 14,000mm²).

AD F: Ventilation - Replacement Windows

If the existing windows have background ventilators, the replacement windows should have background ventilators that are:-

i) No smaller than the background ventilators in the original windows.

ii) Be controllable either automatically or by the occupant.

If the existing windows do not have background ventilators and there is no mechanical ventilation with a heat recovery system, it is necessary to ensure that the ventilation provision in the dwelling is no worse than it was before the work was carried out.

This may be demonstrated in any of the following ways:-

i) Incorporating background ventilators in the replacement windows equivalent to column one in the above table 1.7.

ii) If there is a continuous mechanical extract ventilation, replacement windows in habitable rooms which are not wet rooms must have a minimum background ventilation area of 4,000mm².

iii) Other ventilation provisions, if it can be demonstrated to a building control body that they comply.

Note: If it is not technically feasible to adopt the minimum equivalent areas set out in the above table 1.7, the background ventilators should have equivalent areas as close to the minimum value as is feasible.

For full clarity and guidance on New Part L and Part F regulations, please visit www.gov.uk

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