

Building Regulations

Thermal Performance - Part L

To comply with the 2010 edition of Part L of the Building Regulations⁽¹⁾ each floor's thermal performance needs to be assessed individually in accordance with EN ISO 13370: 1998.

Determining the U-value of the Floor

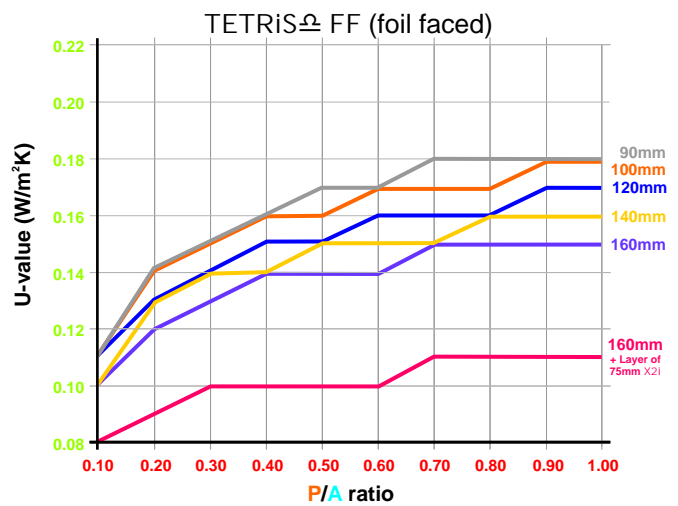
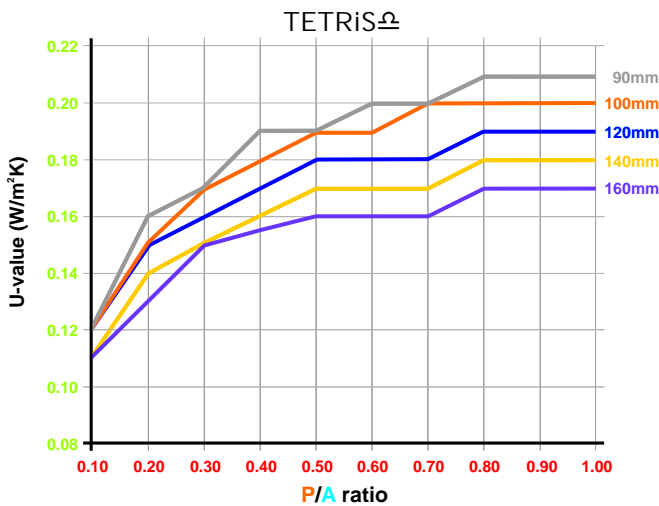
1. Calculate the internal perimeter in metres of the external walls (P)
2. Calculate the internal area in metres of the floor (A)
3. Calculate the P/A ratio
4. Use the graphs below to select the thickness and type of TETRIS[®] required to achieve the desired U-value

Example: U-value of 0.18W/m²K required

Perimeter: $(2 \times 6.25) + (2 \times 9) = 30.5\text{m}$
 Area: $6.25 \times 9 = 56.25\text{m}^2$
 Floor ratio $\frac{P}{A} = \frac{30.50}{56.25} = 0.54$

Thickness needed:
 TETRIS[®] - **120mm** or TETRIS[®] FF -

Type and thickness of TETRIS[®] required:



U-values quoted based on standard TETRIS[®] blocks, for CO₂ blown TETRIS[®] ECO blocks contact *Cellecta* on tel.08456 71-71-74.

The Code for Sustainable Homes

Incorporating *Cellecta* high performance thermal and acoustic insulation products into elements of a dwelling will help reduce the building's impact on the environment and will enable builders and developers to gain *Code* for Sustainable Homes credits (CSH).



Credits can be gained from four of the nine assessment categories detailed in *The Code**:

Category 1 - Energy **Ene 1**

15 *Code* credits are available for improving the DER over the TER. eg. ground floor U-values improved from 0.25W/m²K to 0.16W/m²K.

Category 3 - Materials **Mat 1**

Adopting a construction listed on the BRE website: www.thegreenguide.org.uk, which incorporates one of *Cellecta's* insulation products can result in up to 15 *Code* credits being awarded.

The TETRIS[®] system has been awarded a BRE Green Guide **A+** rating and gains 3 *Code* credits (element number 820140051).

Green Guide rating	A+	A	B	C	D	E
Code credits	3	2	1	0.5	0.25	0

Category 6 - Pollution **Pol 1**

1 *Code* credit is awarded when all the insulation materials in the elements listed below only use substances that have a global warming potential (GWP) of < 5, eg. TETRIS[®] **ECO** blocks:

- Roofs: including loft hatch
- Walls: internal and external, including lintels and all insulation products
- Floors: including ground and upper floors
- Hot water cylinders, pipe insulation and other thermal stores
- Cold water storage tanks

Category 7 - Health and Well-being **Hea 2**

Incorporating one of *Cellecta's* high performance acoustic treatments will also result in points being awarded. Contact our helpful technical team for further information.

⁽¹⁾Also relevant to Section 6 - Energy of the Scottish Building Standards 2007
 *Code credits quoted are subject to an approximate weighted value