

## **Guide to insulation**

There is no government legislation covering insulation standards for Garden Offices or other small Garden Buildings. An inadequately insulated Garden Office is not an 'all-year-round' building. It will be too cold in winter and too hot in summer.

If offered air-conditioning by an office manufacturer, ask yourself why.

To ensure a steady atmosphere all year round, a wooden building needs to be able to breathe, with air circulating round the structural timbers (the parts of the building that you can't see). Buildings that don't breathe retain condensation, need air-conditioning and will eventually rot away; even if they are insulated.

### **Insulation types**

For insulation to work effectively, air must be able to circulate around it. Too much insulation crammed into a small space will not be effective. Too little insulation isn't effective either! Solid plastic and glass fibre insulation materials don't allow a building to breathe, so must be installed in a building that is ventilated in some way.

#### **1. Rockwool.**

Rockwool is mineral wool insulation that is made using as much recycled material as possible. The Rockwool factory in South Wales heats its own offices using waste heat from the manufacturing process. Rockwool won the Wales Environmental Award in 2002 and continually strives to reduce its energy and water consumption.

#### **2. Thermafleece sheeps wool insulation.**

Thermafleece insulation is made from the fleeces of British hill sheep. The manufacturing process uses little energy and the resulting insulation is a natural, low allergy material.

#### **3. Celotex.**

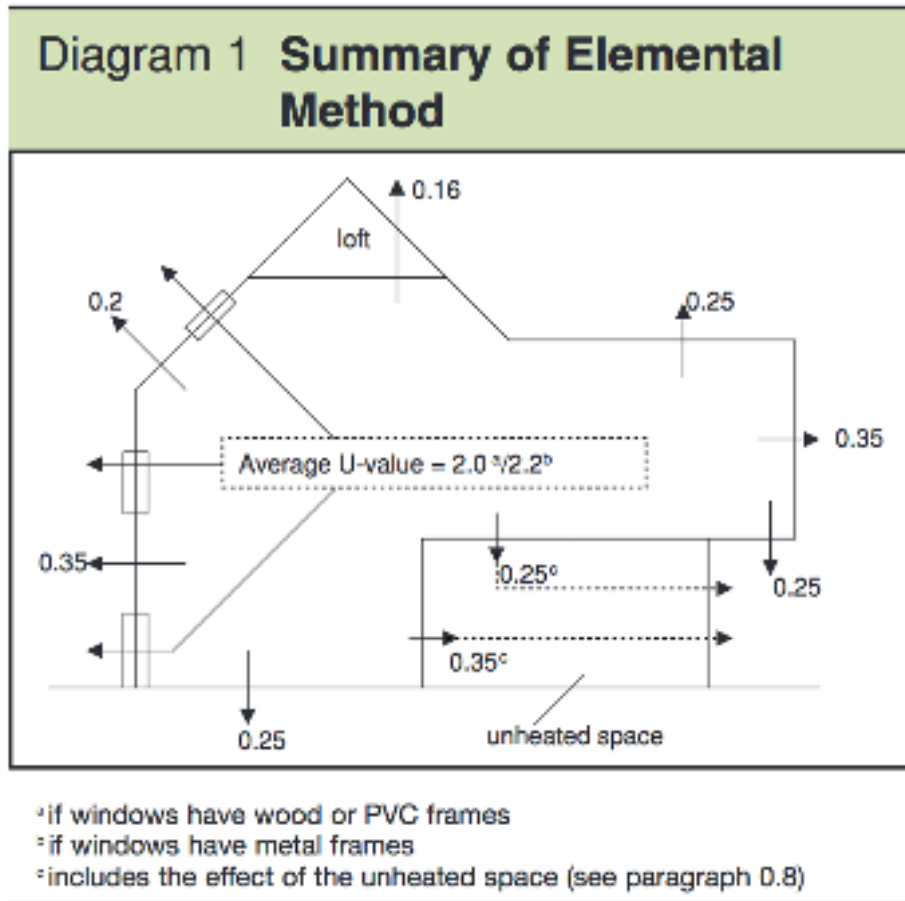
Celotex make a large range of solid insulation boards. They make various products for different building situations.

#### **4. Polyurethane (PU)**

Polyurethane is common in SIPs, because it offers High Levels of Insulation and forms the Core of what is a Structural Panel.

### **Insulation U Values.**

If a Garden Office is insulated to the level required for a new home you will be certain that it is well insulated and will cost very little to heat. However a lower standard of insulation than this, in a very small Office 'may' still be effective.



It is worth ensuring the U values of the walls, roof and floor of your new garden office are going to give you what you need, without adversely effecting your budget.

Insulation is only effective if it is the right insulation to use in an Office and is installed according to the manufacturers instructions. If warm moist air comes into contact with a cold surface in a building, condensation occurs and mould could grow. This damages paintwork, is unsightly and can cause allergies. If mould grows within the structure of a building the integrity of that building may be affected. The right amount of correctly installed insulation will ensure that this doesn't happen.

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