**GLOSSARY OF TERMS – INSULATION**

* **R Rating** - An R Value is a rating which measures how well insulation can resist heat flow. “R” stands for thermal resistance. The R Value depends on the type of material, its density and thickness. Tiny air particles trapped in the insulating material resist the movement of heat (and cold). The higher the R- Value the better the insulation is at reducing heat flow. This means for example that R2.6 insulation is more effective than R1.6.
* **Segment/ Pad/ Biscuit** - generally pre-cut rectangles of insulation product.  Thermally bonded into shape, they are designed to be self-supporting in walls and ceilings and require no stapling into place.
* **Blankets/Rolls** - insulation blankets are suitable for thermal and acoustic insulation of residential buildings. It can be used as a roof blanket, in ceilings, internal and external walls and in mid-floor cavities. Installed as a blanket it can be simply rolled out over the top of the ceiling joists for example
* **Acoustic Insulation** - It reduces airborne sound, impact noise and noise transmission by controlling resonating noise inside the construction cavity.  Acoustic insulation can only be installed when you’re building or renovating, so be sure to think about your quiet and noisy areas when you are designing your new home or renovation.
* **Thermal Insulation** - It provides a region of insulation in which [thermal conduction](http://en.wikipedia.org/wiki/Thermal_conduction) is reduced or [thermal radiation](http://en.wikipedia.org/wiki/Thermal_radiation) is reflected rather than absorbed by the lower-temperature body. The insulating capability of a material is measured with [thermal conductivity (k)](http://en.wikipedia.org/wiki/Thermal_conductivity). Low thermal conductivity is equivalent to high insulating capability ([R-value](http://en.wikipedia.org/wiki/R-value)). In thermal engineering, other important properties of insulating materials are product [density (ρ)](http://en.wikipedia.org/wiki/Density) and [specific heat capacity (c)](http://en.wikipedia.org/wiki/Heat_capacity).
* **Glass wool** - Is an insulating material made from fibres of glass arranged into a texture similar to wool. It is the most widely used insulation product throughout the world - and for many good reasons. It is non-combustible, has high thermal performance, superb sound absorption and is outstanding value for money.
* **Polyester** - the ‘friendly fibre’ because as well as being eco-friendly, it’s non-toxic, non-irritating, non-allergenic and safe for anyone coming into contact with it. With no nasty chemicals to worry about and no microscopic fibres to itch, irritate or be inhaled, GreenStuf can be handled and installed without any special precautions so it’s ideal for DIY’ers.