


Number BPD 07-222	 <div style="text-align: center;"> <h2 style="margin: 0;">BDA Agrément Certificate</h2> <h3 style="margin: 0;">ROOFS and CAVITIES Design</h3> </div>	Category Specific
Date 2008.01.15		Phase Design
Code 41PET00		Subject Thermal insulation batts for lofts and cavities

Points of attention (continued)

- if ventilation openings are used they should be positioned along two opposite sides of the roof at eaves level in accordance with clause 9.4 of BS 5250: 1989;
 - ventilation openings should be arranged in such a way that blockage is prevented and also the ingress of rain, snow, birds and small mammals.
3. **Cavity insulation**
 - it is essential that cavity walls incorporating the insulation in the cavity are designed in such a way that they contain the normal precautions against moisture ingress;
 - specifically the continuity of vapour control layers must be maintained at laps and joints;
 - all sorts of perforations should be kept to a minimum and well be sealed;
 - to minimize the risk of condensation within the structure the recommendations of BS 5250 : 1989 should be followed.
 4. **Timber frame insulation**
 - the building physical of wall structures incorporating the insulation within a timber frame must be analyzed by a specialist;
 - special attention should be given to the air tightness of the inner wall finishing; in certain cases a vapour barrier could be considered.
 5. **Thermal insulation**
 - for the purpose of U value calculations to determine if the requirements of the Building (or other statutory) Regulations are met, the thermal conductivity (λ value) of the product may be taken as $0.0385 \text{ W.m}^{-1}.\text{K}^{-1}$;
 - the requirement for limiting the heat loss through the building fabric, including the effect of thermal bridging can be satisfied if the U values the building elements do not exceed the maximum values in the relevant Elemental Methods given in the national Building Regulations of England and Wales (Approved Documents L), Scotland (Technical Standards J) and Northern Ireland (Technical Booklet F);
 - in these documents also guidance is given on selecting the thickness of the insulation required to achieve the desired U value of the roof or the wall;
 - a typical timber frame construction with loft and cavity insulation is shown in diagram 1.
 6. **Durability**
The product is stable, rot-proof and durable and will remain effective as an insulant for the life of the building in which it is installed. There is no risk for moth or beetle infestation.

Diagram 1 - Typical timber frame construction with loft and cavity insulation

