

## Technical Information Sheet

### NBT SHEEPSWOOL INSULATION

Revised March 2003

#### Description

Sheepswool insulation is an insulation batt made from sheep's wool. UK produced wool is bound into batts using polyester fibres for reinforcement and treated with an inert, naturally occurring mineral, to provide pest, fungal and enhanced fire resistance. The batts are square cut to ensure close fit.

Consistency of the product is monitored by quality tests carried out by the manufacturer:

- Visual grading of wool before binding
- Visual checks of the finished product for damage & flaws before shipping

Sheepswool now has BBA certification number 02/3950

Sheepswool insulation is available in the following sizes:

Product Code	Thickness of Batt mm	Width of Batt mm	Length of Batt mm	No. of Batt in pack
IWB504	50	400	1200	42
IWB506		600	1200	28
IWB754	75	400	1200	27
IWB756		600	1200	18
IWB1004	100	400	1200	21
IWB1006		600	1200	14

#### Design

Sheepswool insulation batts can be used in a wide variety of roof, wall and floor constructions and offer greater environmental, technical and performance benefits than conventional alternatives.

Sheepswool insulation batts are suitable for use as insulation in solid or cavity 'breathing wall' construction, fire barriers and for reducing airborne and impact noise.

Sheepswool insulation batts retain their insulating properties when wet and naturally regain their loft after compression.

Physical properties of Sheepswool insulation:

- Density 22.5 kg/m<sup>3</sup>
- Thermal conductivity ( K ) 0.038 W/mK
- Vapour Resistivity 7.00 MNs/g
- Vapour Diffusion Resistance Factor (ref. air)  $\mu$  1.0
- Water Absorption (@100% RH) 40%
- Sound absorbing properties To be advised

Moisture Absorption and Release:

- Sheepswool insulation can absorb and release moisture without degrading or significant loss of thermal resistivity. This gives it a margin of safety against the formation of interstitial condensation. It is suitable for use in 'breathing' wall construction.



#### Resistance to Passage of Sound:

- Sheepswool insulation is effective in reducing the transmission of airborne and impact sound through the building envelope.

#### Resistance to Fire:

- Sheepswool insulation has greater fire resistance than cellulose or cellular plastic insulants : it does not burn but melts away from an ignition source and self-extinguishes.
- The inert, naturally occurring mineral enhances the natural fire resistance to comply with AS 1530.3-1989 (Spread of Fire) ignitability, spread of flame, heat evolved - score 0 ; smoke evolved - score 7.
- Ignition point 560°C.

#### Formaldehyde Absorption:

- Sheepswool insulation, by virtue of the natural properties of wool, can absorb large quantities of the formaldehyde that is commonly found in most buildings. (tests carried out by the Central Testing Facility, Tokyo)

#### Resistance to Decay:

- Prolonged exposure to water or sunlight will cause the wool to degrade, in common with any organic material.
- Treatment of the wool with an inert, naturally occurring mineral prevents attack from rodents, moulds or fungi.
- When properly installed Sheepswool insulation will retain its loft and thermal performance for the life of the building

### **Installation**

#### Cutting:

- Sheepswool insulation can be cut with an insulation knife. No other special tools are required.

#### Fixing:

- Sheepswool insulation batts are firmly pressed into place between studs to ensure a snug fit with no gaps.
- Square cut edges of batts should be fitted tightly together without gaps.

### **Site Notes**

- Sheepswool insulation batts should be stored under cover and clear of the ground until ready for use.

### **Health and Safety**

- Sheepswool insulation is harmless and can be installed without gloves or protective clothing. It is not irritating to the skin, eyes or respiratory system.
- Loose fibres are not harmful.
- Sheepswool insulation contains no permethrin, pyrethroids, pesticides or formaldehyde.

### **Environmental Impact**

For a full environmental assessment of this product refer to:

NBT Environmental Assessment Sheets

Further information on this product can be obtained by contacting NBT direct.