

## Technical Information

ThermaFleece PB20 insulation rolls are ideal for use in both new-build and refurbishment projects. Applications include insulation of lofts – cold and warm roofs, and attic conversions. The sizes offered allow many combinations of thicknesses and widths to be selected.



Installing ThermaFleece PB20 in a new home

### ThermaFleece PB20 insulation rolls from nbs

ThermaFleece PB20 thickness, width & length per roll mm	1x roll area m <sup>2</sup>	Number of rolls per pack *	Area per pack m <sup>2</sup>	Order code
100 x 370 x 5300	1.96	3	5.88	PB370100
100 x 570 x 5300	3.02	2	6.04	PB570100
70 x 570 x 7600	4.33	2	8.66	PB57070
55 x 570 x 9600	5.47	2	10.94	PB57055

\* Please note, up to 9 packs can be supplied on one pallet.



### Delivery

Please note, the ThermaFleece PB20 rolls are delivered as palletised packs only. Whole packs must be purchased – individual rolls are not available from nbs.

### Technical Information

ThermaFleece PB20 is harmless and can be handled without gloves or protective clothing. It is not irritating to the skin, eyes or respiratory tract and causes no discomfort to site workers during installation. Being a natural material any fibres which happen to reach the living space will present no hazard to health. The necessary insect proofing and fire resistance rating is achieved by the inclusion of naturally derived additives.

**SAFETY NOTE:** Lofts in old buildings can be very dusty, so it is wise to wear a breathing mask and protective clothing when installing the product in confined areas. Where ThermaFleece PB20 is being installed over existing fibrous insulation it is essential a dust mask is worn to prevent inhalation of existing dust particles.

The low thermal conductivity of ThermaFleece PB20 (0.042W/m.K) compares favourably with that of other fibrous Insulation products. The product contains a necessary lofting agent to maintain fibre stability. The product is manufactured in rolls either 5300mm or 7600mm long in various thicknesses and widths. Choose the thickness or combination of thicknesses to achieve the necessary U-value for the structure required by the current Building Regulations. A guide for specifying ThermaFleece PB20 loft insulation for cold roof application is provided on the last page in this publication.

Your architect or building contractor should advise on the mandatory U-values required. A ThermaFleece technical sales office helpline is available –see below.

### Fire Resistance

Wool has a higher fire resistance than cellulose and cellular plastic insulating materials. ThermaFleece PB20 does not burn but rather melts away from an ignition source and extinguishes itself. The product is treated with a natural fire-proofing agent to further improve its intrinsic fire resistance and complies with BS 5803-4 (Spread of Fire) achieving results of Class 0 (Zero) for ignitability, spread of flame and heat evolved.

### Acoustic Properties

ThermaFleece PB20 has been tested for its acoustic properties, which means that it can be specified as part of your noise control scheme.

A full acoustic report is available in the nbs library.



### Technical Service and Helpline

For general enquiries about the application and installation of ThermaFleece insulation email [sales@nbs-home.co.uk](mailto:sales@nbs-home.co.uk) .

Copies of the BBA Certificate and relevant performance reports are available.

Second Nature UK Ltd is also pleased to provide technical advice on how to incorporate ThermaFleece into different forms of constructions for both refurbishment and new self-build projects. A technical sales office help-line 0870 2406715. Computer U-value and condensation risk analysis calculations.

Samples of ThermaFleece.

Help and advice on meeting the requirements of Building Regulations.

<b>Performance Testing –International Standards</b>	
Energy consumption in manufacture	14.6MJ/kg or 136MJ/m <sup>3</sup>
Thermal conductivity	0.042W/m.K
Thermal resistance	<i>Single thicknesses...</i> 70mm thick = 1.67Km <sup>2</sup> /W 100mm thick = 2.38 Km <sup>2</sup> /W <i>Combined thicknesses...</i> 200mm thick = 4.76 Km <sup>2</sup> /W (2 x 100mm) 270mm thick = 6.43 Km <sup>2</sup> /W (2 x 100mm and 1 x 70mm) 300mm thick = 7.14 Km <sup>2</sup> /W (3 x 100mm)
Water absorption (At 100% RH)	24% w/w
Mould resistance	CUAP Vegetable Fibre Draft 2002-01-25
Moth/beetle proofing	Based on ISO 3998
Approximate ignition point	500°C
Spread of fire	Class 0 BS5803-4

### Extremely Durable

ThermaFleece PB20 fibre adapts to the shape of joists to provide a permanently tight fit. Properly installed, the product will retain its low density and thermal performance - with a life expectancy similar to that of the construction in which it is installed.

### Recyclable

At the end of its useful life, ThermaFleece PB20 can be recycled for other environmentally friendly applications. The product contains no permethrin, pyrethroids, pesticides or formaldehydes.

**Guidance when ordering loft insulation for a Cold Roof application – see next page**

**Guidance when ordering loft insulation for a Cold Roof application**

The pack quantities shown in the table below are for guidance. Whole packs must be purchased – loose rolls are not available from nbs. All you have to do is calculate the area of your loft, taking into account water tanks, skylights, chimneys' and other obstructions. The top side of trap doors should be insulated. Round-up to the nearest nominal loft area given in the table, note the number of pack required then click the **Add to Cart** to progress your purchase. The insulation will be delivered direct to your home. Any excess insulation can be used to insulate the hot or cold water tank or simply added on top of the thickness installed.

Guidance quantities of ThermaFleece PB20 packs for nominal loft areas for a total thickness of 270mm required to achieve current Building Regulation standards. Cold Roof application only			
	ThermaFleece PB20 thickness & width mm		
Nominal loft area m	70 x 570 x 7600 rolls**** 2 rolls per pack	100 x 570 x 5300 rolls*** 2 rolls per pack	100 x 370 x 5300 rolls** 3 rolls per pack
	Packs required	Packs required	Packs required
16	2	3	3
22	3	4	4
28	4	5	5
38	5	7	7
44	5	7	8
48	6	8	8
56	7	9	10
60	7	10	10
64	8	11	10
70	8	12	12
78*	9	13	14

\* For loft areas greater than 78m<sup>2</sup> please email [sales@nbs-home.co.uk](mailto:sales@nbs-home.co.uk) with requirement.  
 \*\* Used between joists/rafters where nominal centres are 400mm.  
 \*\*\* Used between joists/rafters where nominal centres are 600mm.  
 \*\*\*\* Used as top layer.  
 Total thickness 270mm has a U-value of 0.15 W/m<sup>2</sup>K.

NOTE: The calculation assume joist sizes to be 100mm x 48mm at 400mm or 600mm nominal centres with 8% bridging plus 1% for cross-noggins allowed)



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 build  
 shop limited [www.nbs-home.co.uk](http://www.nbs-home.co.uk)