

Thinsulate
INSULATION
3M

Type B



T H I N A N D D U R A B L E

DESIGNED TO PERFORM UNDER COMPRESSION

TYPE B

warmth when damp
dries out very quickly
highly breathable



Thinsulate™
INSULATION

Anything else leaves you cold.

Warm under compression

Thinsulate™ Insulation Type B is a thin, warm and light-weight product specifically designed for footwear. Incorporating micro fibre technology, type B provides nearly twice the warmth of felt, pile or foam without the bulk and weight of thick layers. Type B has the ability to retain warmth even when damp or moisture are present. It dries out very quickly and maintains warmth even under moderate pressures. The highly breathable product will improve the comfort of footwear.

Ecological statement

Type B contains no harmful substances according to Oeko-Tex-Standard 100 and has been awarded with the Oeko-Tex-Certificate by Hohenstein Institutes



Typical Properties

TYPE	THICKNESS [cm]	WEIGHT [g/m ²]	WARMTH Rct [m ² K/W]	LENGTH [m]	WIDTH [m]
B 200	0,4	226	0,12	91	1,52
B 400	0,8	440	0,21	45	1,52
B 600	1,5	609	0,36	32	1,52

1 Clo $\hat{=}$ 0.155 Rct [m² K/W]

Data on performance generated by Hohenstein Institutes acc. to ISO 9073-2, EN 12127 and ISO 11092.



Composition

B200, B400 and B600: 88 % Polypropylen, 12 % Polyester
BX400: 65 % Polypropylen, 35 % Polyester
BZ 200, BZ 400: 65 % Polypropylen, 35 % Polyester

Data on BQ and BZ on request.

Footwear Construction

Type B - can be quilted or laminated.
Type BQ - designed for a fuller look after quilting. Supplied in non-quilted form.
Type BZ - needle punched to provide greater transverse strength which may be required in certain footwear manufacturing processes. Check before using light coloured and translucent fabrics if Thinsulate™ Insulation is showing through and whether appearance is suiting the intended design. Slightly varying surface appearance does not affect the performance and specification of the product. For resistance against chemicals, fire and radiating heat and behaviour together with electrical current please contact 3M for advise.

Please also study our PBUS document which gives useful advice about product and brand usage standards.

Important Notice to Purchaser/ User

All statements, technical information and recommendations herein are based on tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed. Before using, user must determine the suitability of the product for its intended use and user assumes all risk and liability whatsoever in connection therewith. Check before using light coloured and translucent fabrics if Thinsulate™ Insulation is showing through and whether appearance is suiting the intended design. Factors such as garment construction, wearer's physical condition and ambient conditions may require different insulation levels. All product performance values stated on Thinsulate™ Thermal Insulation Product Data Sheets are determined before shipping. Storage, handling and shipping may effect the performance levels of the insulation. All statements, technical information and recommendations herein should not be used for tenders and specifications. To validate submitted data please contact 3M. All technical data stated are typical values, but due to the nature of non woven textiles and therefore to the variation of results, they can not be guaranteed. All applications need to be in accordance with our PBUS regulations in order to ensure proper Product and Brand Usage. All questions of warranty and liability relating to this product are governed by the terms of the sales subject where applicable to the prevailing law.