

Thinsulate
INSULATION
3M

Type B

The ultimate in cold weather performance
for boots and shoes.



Boots with
Thinsulate™ Thermal Insulation Type B.

Thinsulate™
INSULATION

3M

Anything else leaves you cold.

Specifically designed for footwear

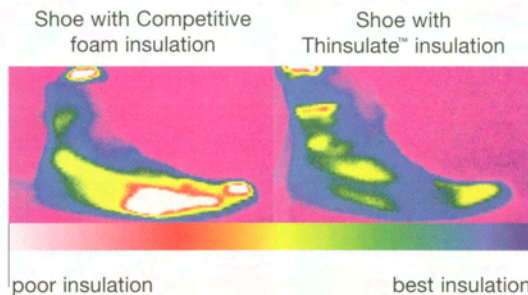
What makes Thinsulate™ insulation type B so important to a cold weather boot? Three descriptive words: thin, warm, light. Incorporating 3M's microfibre technology, type B provides nearly twice the warmth of foam, felt, or pile, without the bulk and weight of thick layers. Another quality that makes type B ideal for footwear is its durability to resist compression and maintain warmth under moderate pressures.

Warmth while damp

An additional advantage over foam and felt based insulation is the ability of type B to retain warmth when wet. The highly breathable material also allows moisture to escape and thereby improving wearer comfort. Dries quickly and easily.

Applications

Footwear



Low flammability

Fulfills requirements of class 1 according to 16 CFR part 1610, Federal Flammable Fabrics Act. Further, type B contains no harmful materials according to the Forschungsinstitut Hohenstein (International Association for Research and Testing in the Field of Textile Ecology) Oeko-Tex Standard 100, and has been awarded with the Oeko-Tex mark.



Typical Properties

	Thick-ness (cm)	Surface Weight (g/m ²)	Warmth insulating measurement R _{ct} (m ² K/W)	Roll Length (m)	Roll Width (m)
B200	0,40	210	0,14	91	1,52
B400	0,80	420	0,28	45	1,52
B600	1,20	620	0,42	32	1,52
BQ400 unquilted	2,50	420	0,57	45	1,52
BQ400 quilted	0,80	420	0,16	45	1,52
BZ200	0,7	210	0,20	64	1,52
BZ400	1,0	420	0,28	45	1,52

Results based on 3M tests quilting BQ product to footwear lining in a 2.5 cm diamond pattern. Quilting conditions and variables may influence results. For data relating to specific construction, please submit quilted samples through a customer service request via a 3M representative.

Composition

B200, B400 and B600: 100% Olefin
BQ400: 65 % Olefin, 35 % Polyester
BZ200, BZ400: 65 % Olefin, 35 % Polyester

Footwear construction

Type B- can be quilted or laminated.
 Type BQ- designed for a fuller look after quilting. Supplied in unquilted form.
 Type BZ- needle punched to provide greater transverse strength which may be required in certain footwear manufacturing processes.

