

Type Z

ORIGINAL

Product Description

3M™ Thinsulate™ Insulation (Type Z) is a lofty, soft product, specifically designed for bedding applications including duvets, comforters and bedspreads.

- Soft luxurious comfort
- Hypoallergenic
- Excellent warmth and loft
- Unique four fiber blend
- Moisture resistance from hydrophobic fibers
- Hot water washable
- Lightweight
- Breathable
- Drapeable

Intended Uses

Bedding.

Fiber Composition

U.S. Convention:

Insulation:
100% Polyester

ISO Convention:

Insulation:
100% polyester

Flammability

Class 1 — Normal Flammability per procedure in 16 CFR Part 1610, Federal Flammable Fabrics Act.

Warmth While Damp

Retains most of its insulating ability even under damp conditions. Individual fibers absorb less than 1% by weight of water. Easily dried.

Restricted Substances

3M™ Thinsulate™ Insulation (Type Z) meets the harmful substances requirements of OEKO-TEX® Standard 100 and has been awarded the OEKO-TEX® Certificate for Product Class 1 by Hohenstein Institutes (meets the human-ecological requirements of the standard presently established for baby articles).



Article meets the bluesign® criteria

3M™ Thinsulate™ Insulation (Type Z) articles carrying the bluesign® approved label meet the strict safety and environmental criteria of the bluesign® system. These articles are made from bluesign® approved chemical products and raw materials and are produced in a resource conserving way with a minimum impact on people and the environment.



Available Widths

3M™ Thinsulate™ Insulation (Type Z) is provided in the following nominal widths on a 2" (5.1 cm) inside diameter core:

- 60" (1.52 m)
- 80" (2.03 m)
- 100" (2.54 m)
- 115" (2.92 m)

Properties

Typical Values*	3M™ Thinsulate™ Insulation (Type Z)						
	Basis Weight		Thickness ASTM D 5736 @ 0.002 psi		Thermal Resistance (R _{ct}) ASTM F 1868		
	g/m ²	oz/yd ²	cm	inch	clo	R-value	m ² °K/W
Z80	80	2.4	1.0	0.4	1.8	1.6	0.28
Z120	120	3.5	1.4	0.6	2.3	2.0	0.36
Z150	150	4.4	1.7	0.7	2.7	2.4	0.42
Z250	250	7.4	2.7	1.1	4.0	3.5	0.62

* Values represent the averages of the population of lots at date of publication

$$\text{Clo (R}_{ct}) = \frac{(0.18 \text{ °C} \times \text{m}^2 \times \text{hr})}{\text{K cal}} \quad \text{R-value} = \frac{(\text{hr} \times \text{ft}^2 \times \text{°F})}{\text{BTU}}$$

Construction Guidelines

Allow 24 hours for recovery of 3M™ Thinsulate™ Insulation (Type Z) after removal from vacuum pack.

A high quality downproof cover fabric is recommended. Fabric should be tested for fiber migration if not downproof. Total thread count of over 230 threads per inch

(91 threads per cm) is recommended. The insulation should be box or diamond quilted with spacing between 15 and 30 cm, with 30 cm box quilting providing better results. **Thorough testing by the manufacturer is suggested for other quilt designs.** Insulation should extend fully into the outer edges of article to ensure durability.

3M can assist with this testing. Please see your sales representative for details.

For questions, contact 3M Home Care Division Customer Service at 651-575-6694.

**CAUTION**

To reduce the inhalation of fibers or airborne dust, always use an appropriate respirator when the cutting or processing of rolls is expected to produce fibrous or airborne dust.

Care Instructions



Can be machine washed in hot water and dry-cleaned according to bedding manufacturer's care instructions. Wash up to 60 °C and dry up to 90 °C in large front load laundry equipment. Avoid pH boosters and strong detergents. Wash testing should be performed for applications requiring frequent commercial washing.

- Avoid storage in a compressed state
- Store away from heat
- To revitalize loft, tumble dry low

IMPORTANT NOTICE

WARRANTY: In the event any 3M™ Thinsulate™ Insulation product is found to be defective in material, workmanship or not in conformance with any express warranty for a specific purpose, 3M's only obligation and your exclusive remedy shall be to repair, replace or refund the purchase price of such parts or products upon timely notification thereof and substantiation that the product has been stored, maintained and used in accordance with 3M's written instructions.

EXCLUSIONS TO WARRANTY: THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHER WARRANTY OR CONDITION OF QUALITY, EXCEPT OF TITLE AND AGAINST PATENT INFRINGEMENT.

LIMITATION OF LIABILITY: Except as provided above, 3M shall not be liable or responsible for any loss or damage, whether direct, indirect, incidental, special or consequential, arising out of the sale, use or misuse of 3M™ Thinsulate™ Insulation products or the user's inability to use such products. **THE REMEDIES SET FORTH HEREIN ARE EXCLUSIVE.**

3M's general terms and conditions also apply to the sale of this product.

3M may change the product, specifications and availability of the product as improvements are made: therefore, user should contact 3M for latest information before specifying the product.

All 3M™ Thinsulate™ Insulation rolls and 3M™ Thinsulate™ Featherless Insulation bags are produced within strict dimensional and weight tolerance specifications. However, changes in environment and other factors may cause the final dimensions and/or bag weights to shift, shrink, or otherwise change up to a maximum of ±4% during handling or shipment.

Please allow products to recover 24 hours after vacuum pack is removed.



Home Care Division

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Thinsulate.com

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