

The hidden formula to sleeping bag warmth

The keys to sleeping warm

Are you dehydrated?

Make sure that you stay properly hydrated throughout the day. Dehydration can lead to a cold nights sleep.

Have you had the proper daily caloric budget (calories consumed vs. calories expended)?

Be prepared with proper food and enough of it.

Are you using the proper sleeping pad?

Always choose the right sleeping pad for the conditions you expect to encounter. Not only do they help with a comfortable nights sleep, but they shield your body from the cold ground.

What clothes do you wear when you sleep?

Often times adding an extra layer (especially a beanie) can add extra warmth. Try to avoid cotton.

Are you naturally a cold person?

We recommend erring on the side of caution and choosing a bag that is rated 5-10 degrees warmer than you would normally choose. A sleeping bag can always be unzipped if it gets too warm.

Is there moisture in your sleep system from condensation and perspiration vapor?

Never go to bed with damp clothes on and try to air out your sleeping bag in the morning before putting it in its stuff bag.

Temperature Rating & Testing Methods

What is EN 13537?

The European Norm (EN) is a test designed and performed by an independent third party that seeks to standardize the way temperature ratings or thermal guidelines are established for sleeping bags.

TESTING METHODS

A full length mannequin covered "head to toe" with heaters and temperature sensors is outfitted with base layer top, bottom, hat and socks. The mannequin is placed in the sleeping bag and both are put into a climate chamber. The mannequin is heated to simulate body warmth. The air temperature is measured in the chamber and on the surface of the mannequin. From these measurements, the thermal value of the sleeping bag can be calculated. Based on the measured insulating ability of the tested sleeping bag three temperature results or recommendations are provided.

The following assumptions are used as the "gender standards" for all temperature calculations.

♀ Woman (25 years old, 60 kilograms, 1.6 meters tall) ♂ Man (25 years old, 70 kilograms, 1.73 meters tall)

TEMPERATURE RATINGS



COMFORT : Based on the lowest temperature at which a "standard" adult woman is deemed able to have a comfortable night's sleep.

EXTREME : Based on the lowest temperature at which a "standard" adult male is deemed able to have a comfortable night's sleep.



GOOSE DOWN

Montbell uses only high quality goose down, one of nature's warmest and lightest insulations. Developed for use in items that are intended to be light in weight, yet very compact.



800Fill Power Goose Down

Our highest quality goose down, 800 fill power insulation provides superior warmth without unnecessary bulk and weight.



650Fill Power Goose Down

Quality 650 fill power down is a very cost effective option, while offering excellent loft and insulating ability.



The Down Ball

The very long, fine hair of a goose down ball provides more overall surface area, which holds more air and contributes to greater warmth.

Warm Air

What is Fill Power?

The Fill Power of down is its ability to restore original loft after being compressed. A Fill Power Rating of 800 indicates that one ounce (28.4 grams) of down will occupy 800 cubic inches volume when subjected to a standard compression force. The higher the rating, the more air the down will hold and as a result a greater insulating value compared to a lower Fill Power of the same fill weight.

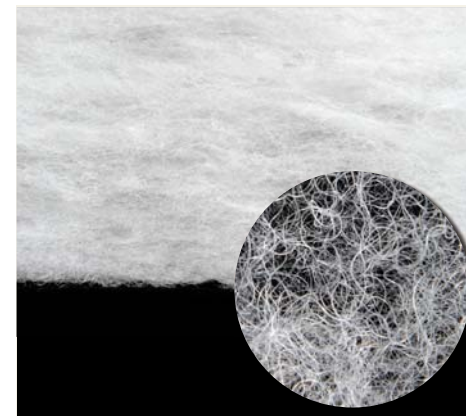


Rigorous Quality Control



Montbell uses only the best quality down from suppliers meeting IDFL (International Down and Feather Laboratory) strict quality control guidelines.

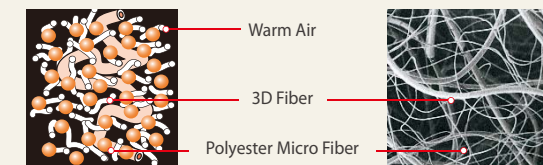
Multi-Tube Construction with Flow Gate™



Synthetic Insulation



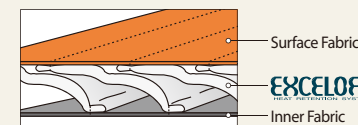
EXCELOFT™ uses a three-dimensionally crimped construction to create our warmest polyester insulation. By crimping the large hollow polyester fibers and weaving 0.7 denier micro-polyester fibers in between, we create multiple air strata and maximize loft. EXCELOFT™ is as warm as down and dries far faster, making it simple to maintain and ideally suited to wetter climates.



By intertwining two variable diameter fibers, we create a high lofting material that optimizes the ratio of structure to dead space, thus enabling the retention of precious body heat.

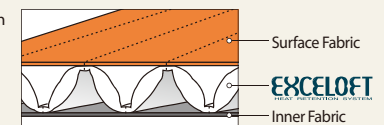
Shingle Construction

Shingle or Tile Construction alternately layers sections of insulation to prevent unnecessary heat loss.



Zigzag Construction Thermal Sheet utilizes this construction method.

Construction lines are not sewn thru to prevent heat loss.



Maintenance & care of your sleeping bag

DOWN SLEEPING BAGS



SYNTHETIC SLEEPING BAGS

You can extend the life of your investment by sleeping in clean clothing as often as possible when in the backcountry and by storing it loose, in a cool and dry place when not in use. At the foot of each sleeping bag are two loops that allow you to hang the sleeping bag when not in use. All Montbell bags also come with a large, breathable cotton bag for storage purposes. When washing your sleeping bag, be sure to turn the bag inside out, and zip up the zipper fully. If machine washing, wash on cold and gentle settings. Remember to always use a front-loading large capacity commercial washer, as the agitator in a top-loading washer will damage the seams and baffles of your sleeping bag. It is important to wash your bag with a soap specifically designed for the type of insulation used in your bag. Never use liquid detergents or fabric softeners on a sleeping bag, as these products may leave

residues that will not rinse out and may inhibit the ability of your insulation to loft. Montbell recommends cleaning products (and the directions they come with) made by ReVivex or Nikwax. When preparing to dry your sleeping bag, be very careful when moving it from the washer to the dryer. Lift the entire bag at once from the bottom and carefully place it in a large capacity commercial dryer. Montbell does not recommend using a home dryer as the limited space can overheat your bag and melt the ultralight nylon shell. Tumble dry on low heat. Drying may take several hours, Montbell recommends checking the bag often to make sure it is not overheating. When caring for down bags it is VERY important to make sure that the down is not clumping. If clumping occurs, redistribute the down with gentle massage (a few clean tennis balls added to the cycle can also do the trick). Your sleeping bag MUST