



Equipment list for tent trips in winter

The following list can be of help when you are planning a weeklong backcountry ski-trip with your Hilleberg tent. Naturally there are different gear and personal preferences, but this list suggests what to take and gives examples of possible weights without jeopardizing safety or personal comfort. We assume that everything is carried in a backpack. In order to emphasize the effect of thoughtless packing we present the potential weight-range of the different items. Being consistent in your choice will result in considerable weight savings. Some prefer using a pulka (sled) but then you should still have a small backpack for day trips or for easing the weight of the sled in soft snow or while ascending a hill. When going on winter trips with a permanent base camp, a sled can be an excellent choice.

Clothing etc. for skiing in ordinary winter conditions

1. Briefs (with wind shield)
2. Long underpants
3. Long-sleeved undershirt
4. Socks compatible with your footwear (soft ones do not chafe as easily)
5. The choice of underwear is a very personal one. Many new synthetic materials work well and offer certain advantages over organic materials. At very low temperatures and a low level of activities a blend with wool is preferable because your body temperature does not sink as quickly with wool next to your skin. Avoid cotton next to your skin.
6. Jacket or light anorak
7. Long shell pants (wind proof)
8. Gaiters (preferably covering your footwear)
9. Ski gloves (In fair weather a lighter version will suffice. In severe cold and/or poor weather conditions it is good to use an unlined mitt in a "breathing" fabric and a loose inner mitt made of fleece or wool)
10. Hat (not too warm but windproof)
11. Sunglasses (with side shields)
12. Ski boots

There are many different kinds of ski boots on the market, and many of them are suitable. However, the right choice can still be difficult because of the specialization that has taken place. A lot of gear has clearly a defined purpose, which makes it sometimes hard to find truly

versatile equipment. Good touring footwear should be reasonably firm without being stiff or too hard, yet give enough support for the downhill sections of your trip. The boot should be high enough so that there is ample overlap of the gaiter over the shaft of the boot.

13. Skis

A touring ski with good all-round qualities usually has appropriate camber and a side cut allowing it to swing responsively. The camber should be stiff enough to retain some ski wax. Steel edges are not always necessary but good to have. Wax-free skis are the preference of most and unbeatable in shifting snow conditions.

14. Poles

15. Bindings

Bindings come in many different types and styles, but they can be classified into two groups: cable bindings and toe bindings. Both are equally good. A toe binding allows you to move more freely but it is harder on the sole of your boot. A cable binding feels a little stiffer to walk with but is very easy to operate. The integrated boot-binding systems are usually a little more comfortable but they are often a little less rugged. The footwear of these systems are often not very suitable for walking.

Equipment (kept in your backpack or sled)

Item	Min-Max weight Kg	Min - Max Weight lbs oz
Jacket or anorak	0,4 - 1,5	0.14 - 3.4
Shell pants	0,3 - 1,0	0.10 - 2.3
Suitable fabrics for the outer layer should be wind- and waterproof but still have venting qualities. Gore-Tex®, MPC, Sympatex™ etc. are good for this. Even when these materials are "breathable" they can often feel clammy and unpleasant to wear when you are physically active, but this is highly dependent on the individual.		
Pullover/other warm garment	0,3 - 1,0	0.1 - 2.3
Hat	0,1 - 0,5	0.3 - 1.1
Goggles	0,1 - 0,3	0.1 - 0.3
Extra socks	0,2 - 0,4	0.7 - 0.14
Undershirt	0,1 - 0,4	0.3 - 0.14
Briefs	0,1 - 0,2	0.3 - 0.7
Long johns	0,1 - 0,3	0.3 - 0.10
Mittens	0,1 - 0,3	0.3 - 0.10

If you use underwear in thin synthetic material it may be wise to have the extra underwear in warmer material (fleece or wool).

Other equipment

Backpack	1,5 - 3,5	3.4 - 7.11
Sleeping bag	1,5 - 3,5	3.4 - 7.11
Foam pad	0,5 - 2,0	1.1 - 4.6

Ideas about **backpacks** have changed during the past 10-15 years. Where formerly frame-packs dominated the market softer and more shaped backpacks have taken over. The modern "softpack" has become the new standard. However, for voluminous and heavy loads a frame is still unbeaten. But for most of us with normal demands an internal frame with its adjustability is the way to go. A backpack for ordinary winter trips should have a volume of 60-80 liters.

A winter **sleeping bag** can have down or synthetic fiber insulation. As usual there are different opinions on what is best. A down bag is lighter, less voluminous and provides good insulation for its weight. Bags with synthetic fibers cost less but have traditionally been heavier and bulkier. But here product development has improved the odds for the man-made insulators: lower weight and lesser bulk with good insulation qualities are more common today than only a few years ago. For those who do not shy away from the high price a quality down sleeping bag with an outer shell in DryLoft is still the best choice when it comes to function and longevity.

A closed-cell foam pad needs to be at least 12 mm thick to insulate appropriately on snow. They are light but quite bulky and always reliable. If you choose a self-inflating mattress (ex. Therm-A-Rest) it should be at least 30 mm thick, preferably more.

Compass	0,1 - 0,5	0.3 - 1.1
Map	0,1 - 0,2	0.3 - 0.7
Toiletries	0,1 - 0,2	0.3 - 1.1
Toilet paper	0,1 - 0,2	0.3 - 0.7
Cutlery	0,1 - 0,2	0.3 - 0.7
Cup	0,1 - 0,3	0.3 - 0.10
Plate or bowl	0,1 - 0,3	0.3 - 0.10
Bottle and/or thermos	0,1 - 1,2	0.3 - 2.10
Matches and/or lighter	0,1 - 0,2	0.3 - 0.7
Knife or multi-tool	0,2 - 1,0	0.7 - 2.3
Torch	0,2 - 0,5	0.7 - 1.1

Ski wax (when appropriate)	0,0 - 0,5	0.0 - 1.1
Repair kit, spares	0,2 - 0,5	0.7 - 1.1
First Aid Kit	0,1 - 0,3	0.3 - 0.10
Total weight:	6,7 - 21,3 kg	14lbs 18oz - 46lbs 14oz

Further possible equipment, but not absolutely necessary

Down jacket	0,6 - 1,5	1.5 - 3.4
Insulated overpants	0,3 - 1.0	0.10 - 2.3
Bivy booties	0,4 - 1,0	0.14 - 2.3
Sleeping bag cover	0,3 - 0,8	0.10 - 1.12
Vapor barrier liner/inlet	0,3 - 0,6	0.10 - 1.5
Climbing skins	0,4 - 0,6	0.14 - 1.5
Camera	0,3 - 4,5	0.10 - 9.14
Binoculars	0,3 - 1,0	0.10 - 2.3
Map case	0,1 - 0,3	0.3 - 0.10
Whisk	0,1 - 0,2	0.3 - 0.7
Snow brush	0,1 - 0,2	0.3 - 0.7
Tent lantern	0,2 - 0,5	0.7 - 1.1
Line, 4-5 mm, 10-20m long, pref. Red	0,2 - 0,4	0.7 - 0.14
Total weight	3,6 - 9,3 kg	7lbs 15oz - 20lbs 8oz

Joint equipment for a tent team of two (stating half the weight: the weight each person carries)

Tent	1,1 - 2,5	2.6 - 5.8
Stove (incl. cleaning kit and pots)	0,3 - 0,8	0.10 - 1.12
Fuel	0,8 - 1,5	1.12 - 3.4
Snow shovel (1 p/person in heavy snow)	0,3 - 1,0	0.10 - 2.3

Food

Total weight	2,5 - 5,8 kg	5lbs 8oz - 12lbs 12oz
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It saves weight to plan and prepare your meals well ahead of the trip. Pack the food for each day into a separate bag. Share the load of carrying and preparing the food with your teammate. Alternate between carrying food, stove, fuel and snow shovel with carrying and pitching your tent. Make sure that you get 4 liters / 1 gallon of fluid per day to maintain your physical and mental strength and to stay warm. By planning your meals carefully, you can save a lot of weight. It is not unusual that the weight of food varies between **0,5 and 2 kg / 1 lbs 1 oz and 4 lbs 6 oz per day!** This means that on a six-day trip the weight of food can vary between **3 - 12 kg / 6 lbs 9 oz - 26 lbs 7 oz!**

If you summarize the weights in the left hand column including food without the "not absolutely necessary" items, you get **12,3 kg / 27 lbs 1 oz**. If you look at the right hand column, you get **38,8 kg / 85 lbs 8 oz**. The "not absolutely necessary" equipment weighs **3,7 kg / 8 lbs 2 oz** in the lighter version, and **9,6 kg / 21 lbs 2 oz** in the heavier one.

With the help of the above suggestions you should be able to manage well to pack for a winter camping trip without getting much above 20 kg / 44 lbs 1 oz, possibly even a bit below. However, do not fall for the temptation in your enthusiasm to save weight by taking inferior or downright unsuitable items. Pack a few days prior to the trip, consider and weigh all items and compare with our list. Set your own priorities and decide what you really need. Save the list and adjust it after your trip when you have gained some experience. After some time you will know exactly what you need and how your equipment works.

Have a great and safe trip!

- Your Hilleberg team

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