

INSULATION

Evenings drawing in too early, temperatures dropping, Christmas madness has already started, in need of a 'pick-me-up'? Winter climbing, that's something to look forward to, and all the more pleasurable if you're well-dressed for the temperatures. When I started winter climbing I wondered what all the fuss was about, as I was constantly cold, waiting patiently on belay ledges but, quite frankly, not really enjoying myself, until someone treated me to a new winter jacket and trousers and all of a sudden... I got it... it really was fun, if you're warm enough. So, why not treat yourself to a new warm layer to set you right for the season ahead. Here we're going to take a look at some of what's out there in the market nowadays, and how to decide which jacket might best for you...

The world of insulation has come a long way in the past few years, with the leading manufacturers putting heaps of money into R&D to find the holy grail of insulation clothing... warm, light, and waterproof. Historically we've had a choice between down or synthetic insulation. Down has always been the warmest option, (after all, geese do keep swimming even when it's icy), down will pack down really nice and small into a rucksack and it is superlight. Its major drawback being that as soon as it gets wet, the feathers clump together and flatten losing all its insulation properties, and you start losing body heat very quickly. Cue synthetics, which keep their insulation properties even when wet, their drawback is that to get anywhere near the warmth provided by down you need to add quite a bit of weight and bulk. Both synthetic and down garments will lose loft when they get wet, but, unlike down, the synthetic jacket will retain its insulation properties.

So the clever people in R&D have come up with a few pretty interesting developments, most notably, 'hydrophobic down' being hailed as revolutionary in the world of insulation, both for jackets and also for sleeping bags. This is where the down feathers are treated to a polymer chemical hydrophobic treatment, which means that the feathers don't soak up water and clump as readily as non-treated

feathers, and so keep dry for longer and once wet, they will dry much more quickly. As well as this, there have been developments on the 'synthetic side of the fence'. The North Face have been working

with a manufacturer looking at the problem from the other side of the bar, developing a 'down simulation' synthetic product, called Thermoball. By simulating feathers (in puffed up little clumps) the Thermoball technology is able to produce a synthetic garment that is light, feels like down, is warmer than traditional synthetic fabrics, and packs down pretty small. Similarly, Mountain Hardwear have developed a synthetic product that simulates the structure of goosedown, with rigid stems forming a matrix of gaps and softer fibres between the gaps to insulate, resulting in a warmer structure with improved compression rebound. Some manufacturers

have been developing garments with mixed fabrics, such as the Haglöfs Rando Barrier Jacket, which combines Powerstretch arms and back, with an insulated front torso. Most of the jackets now on the market, have been treated with a DWR (Durable Water Repellent) coating on the outside, which will keep moisture at bay for a short while, this is what causes moisture to bead on the outside of garments. The only problem with this is that it does wear off in time, with usage. ▶

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WINTER WEAR

by Kate Scott

...the most important thing to look for is a jacket that is both warm and breathable. The Höglofs Barrier Pro Jacket is a great choice for winter climbing. It is made of a high-quality, technical fabric that is both warm and breathable. It also has a lot of pockets and a high collar, which is great for keeping your hands and neck warm. The jacket is also available in a variety of colors, so you can choose one that suits your style. If you are looking for a jacket that is both warm and breathable, the Höglofs Barrier Pro Jacket is a great choice.

Kate Scott testing a Höglofs Barrier Pro Jacket ice-climbing in Cogne. Photo: Bruce Goodlad



INSULATION

When you're looking for a duvet jacket, you need to think about what you are mostly going to be using it for, and where it might sit within your 'outdoor wardrobe'. Thinner synthetic garments are ideal for part of a layering system where you don't want anything too bulky if you're putting further layers on top. It's okay to put a hard shell jacket on the outside of a synthetic duvet, as whilst down loses its insulation properties when squashed, synthetics don't. Also, the shiny outer fabric moves well under a hard shell layer, unlike fleece which has a tendency to snag. Thinner synthetic or down jackets work perfectly as a top layer garment, as long as you're not going anywhere where it's ridiculously cold. If you plan to be out on the coldest days in the Alps or further afield, then a big, thick down duvet is what you're after. This will pack down nicely in a rucksack for the approach, you can sling it on for super cold belay spots or when you get to high altitudes. These are also great when you're hanging around camp at high altitude.

On Mount Elbrus, I started with a thin synthetic down jacket within my layering system, under a Paclight shell, and then as we reached the summit

ridge, I was very pleased to pull on my big thick outer duvet, over everything, with a great protective hood. A mixed fabric garment may work well if you don't want to be wasting time adding or removing layers as you climb/belay. The idea of these is that the areas where you heat up the most, are left in breathable, cooler fabric, and the front sections where you need the warmth are well insulated.

In terms of features, if you're going to be actually climbing whilst you're wearing it, you'll want your jacket, as a minimum, to fit well under a harness, to have easy access to the pockets and have a hood that fits well over a helmet as well as giving you some protection to your face. It is amazing that so many leading manufacturers have failed to design a hood in a climbing jacket that will fit over a helmet at all. We tested all the garments in this review with a number of different helmet designs, to make sure it wasn't a problem specific to one type of helmet. Unless otherwise stated all the products tested are available in men's and women's fit.



Berghaus
Ramche
Jacket

Haglöfs Magi II
Down Q Hood



SUPER THICK DOWN

Berghaus Ramche Jacket

This is by far the lightest thick jacket in this review. The big thing here is the new Hydrodown technology. When put to the test in a full summer Alpine storm the jacket held up surprisingly well, the only area of concern was on the underarms where it has stitch-through baffles, and water did start to seep through, after 15 minutes in a full-on downpour. The jacket is also covered in a DWR coating which kept the rain from soaking into the outer fabric during testing. It would be interesting to see how the down holds up after a more long term usage, when the DWR wears off. Otherwise the jacket is superlight at 426g (Women's M), with a good size hood that fits well over a helmet and good hand pockets. An excellent, superlight – weight for warmth jacket.

Haglöfs Magi II Down Q Hood

This jacket feels like you're getting into the snuggest, luxury bed of feathers. The Magi II is super warm, thanks to the box wall construction, which means that no-stitch seams go right through the down from inside to outside, so no chance for cold draughts. It has good size hand pockets and an easy to adjust hood that fits comfortably over a helmet, if needed. In areas of most compression, where the down is less effective due to being squashed, such as the shoulders and mid-sleeves, there is a layer of synthetic insulation. This was by far, the warmest, snuggest jacket in the test.

THIN SYNTHETICS

The North Face Thermoball Hoodie

This is completely new to the market and the technology (synthetic that mimics down clusters) is exclusive to TNF for three yrs. The DWR finish on the outer kept the water off during testing but this may wear off in time. A very comfortable jacket, which feels like down. Its only drawback being that as soon as you raise your arms the whole jacket rides up, lifting it out of the harness. The hood is a little on the small size if you are going to put a helmet underneath.

Mammut Rime Pro Jacket (men's only)

The jacket was worn over a thermal and a soft shell when climbing the Dent de Geant in the morning shade. It was a comfortable fit over these two layers with freedom of movement when climbing and abseiling. The hood fitted nicely over a helmet and the whole thing felt snug without the associated bulk of a fuller weight duvet. The large internal mesh pockets are excellent for gloves or a water bottle. It would be equally at home for a walk to the pub.



The North Face
Thermoball Hoodie



Mammut
Rime Pro
Jacket

Mountain Equipment
Compressor Hoody

Mountain Equipment Compressor Hoody

A very thin, nice and light, synthetic insulation piece from Mountain Equipment, this would fit well as a layering piece, or as an outer layer on a cool windy day. It has a not very flattering cut compared to some and a slightly retro look and feel to the outer fabric. The jacket does ride up when you have your arms above your head, and the hood is on the small side if it's going to be worn over a helmet.

Mountain Hardwear ThermoStatic Hooded Jacket

This features new technology from Mountain Hardwear. The ThermoStatic Hoody is really light with a lovely soft feel. The cut is long which covers the lower back well and works well under a harness and the jacket doesn't ride up when raising arms climbing. The hood fits fine over a helmet and the elasticated hood trim keeps the wind out and when the hood is down, sits snug against your neck, not letting any snow fall into the hood. The insulation is soft and comfortable to wear, and feels warm for its weight. MH claim it's 20% warmer than other synthetic insulation, but with so many new fabrics on the market this year, it's impossible to substantiate this without taking them into a lab.


Sprayway Firebird Jacket

The Firebird has a good loft, and feels quite snug to wear, although at the cost of being slightly heavier. The hood is a good size, protecting the face when worn with a helmet. Retailing at £80 it is an affordable jacket, and a nice piece of kit for the money, neatly packing down into its own pocket.

Rab Strata Hoody

From the new Rab Strata range, this is a superlight jacket, with a nicely tailored fit, although slightly on the short side when arms are raised. The breathability of the jacket is suited to more activity rather than as a belay piece. It worked well in a layering system when Alpine climbing, but the hood is too small to wear over a helmet.

Páramo Torres Smock (unisex only)

Páramo specialise in staying warm and dry in the worst conditions the British mountains can throw at you. The sizing is extremely generous, with a Women's Small comfortably fitting my Medium male tester. The hood fits fine over a helmet, but the neck is tailored on the tight side for most testers. For insulation, it feels comfortable although on the heavy and bulky side to stuff in a pack. It will keep you dry and warm in classic UK conditions. This also exists in a Gilet version (Torres Core), with similar basic features, as well as some add-on sleeves. 



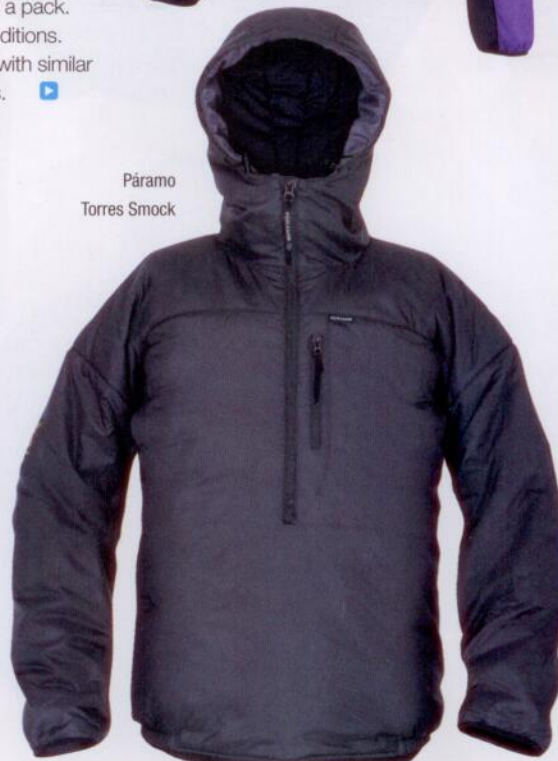
Sprayway
Firebird Jacket



Mountain Hardwear
ThermoStatic
Hooded Jacket



Páramo
Torres Smock



Rab Strata
Hoody



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“Thinner synthetic garments are ideal for part of a layering system where you don't want anything too bulky if you're putting further layers on top”

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INSULATION

Montane Alpha Guide Jacket (men's only)

Although this sits slightly apart from most of the other products in the review, we thought it worth including. The jacket has an insulated (Polartec) core, and stretch fabric arms and shoulders. Whilst a great idea, the tester felt the product could be improved in cut and in reducing its weight. Although it doesn't give as much insulation as an out and out duvet jacket, it offers a compromise between soft shell and insulation. Unfortunately the cut of the neck/hood made the whole jacket ride up when put on over a helmet.

Haglöfs Rando Barrier Jacket

Although this is from Haglöfs Rando range, we thought it worth a quick mention, as it's a super versatile piece. This is great when climbing, a tailored cut with tailored sleeve ends giving extra warmth over the backs of your hands and wrists. The breathable stretch back and side panels give great freedom of movement, and the Primaloft front panels give great warmth. If you want Primaloft all-over then the Haglöfs Barrier Pro II Hood is one of our favourite pieces.

THIN DOWN

The North Face Catalyst Micro Jacket

Another new product from TNF this year is a water resistant down jacket, using Prodown which is down that has been subjected to a hydrophobic treatment. The jacket also has fast drying panels in the underarm, which allowed some breathability when climbing and crucially meant the jacket didn't ride up at all, when swinging an axe above your head. In the rain test, this did remarkably well. The DWR coating certainly helped and the only place where moisture and cold did start to seep in was on the stitching of the stitch-through baffles on the arms. The cuffs on this jacket are awesome, with a cuff of down reaching beyond the elasticated cuff. Unfortunately the hood doesn't offer enough protection of the face, when over a helmet.

Patagonia Women's Ultralight Down Jacket

The Ultralight Down Jacket is a lovely lightweight insulation piece with a full length zip, the slim fit cut is excellent, and the DWR finish keeps moisture at bay. Personally I wouldn't buy a duvet jacket without a hood, as when I want to be warm, I'll want a good hood as well. Fortunately, it does exist in the Hoody version, but it wasn't available for test.

Arc'teryx Cerium LT Hoody

Arc'teryx have taken the traditional concept of a down jacket and given it their twist, called Down Composite Mapping, which uses synthetic Coreloft fabric where moisture may accumulate, and down in the core region of the jacket. This is surprisingly effective, and the jacket feels neither bulky nor heavy. The jacket feels comfortable through all range of movements, the only drawback is that it does ride up a little if you lift the hood over a helmet and it would be nice to see the hood give a bit more protection of the face. The hem of the jacket is lightly elasticated, but this is nowhere near as effective as a drawcord for keeping out cold winter draughts.



Haglöfs Rando
Barrier Jacket



Montane Alpha
Guide Jacket



The North Face
Catalyst Micro
Jacket



Patagonia
Women's Ultralight



Arc'teryx
Cerium LT Hoody

Haglöfs Essens II Down Hood

A lightweight, thin down piece, great for stuffing in the bottom of your rucksack as a spare warm layer. A nicely tailored fit, with no movement when your arms are raised, but disappointingly the hood was too small to wear over a helmet. Perfect for summer Alpine use, where an extra layer is needed on the high summits or in the evenings.

Haglöfs Essens II
Down Hood



Rab Microlight
Alpine



Rab Microlight Alpine

Another hydrophobic down jacket with a good warmth to weight ratio, a soft feel and an extended back panel to give good lower back cover. The jacket does ride up when arms are raised and yet another jacket in the review where the hood won't fit over a helmet. The jacket has a nice deep Napoleon pocket with plenty of room for a map, bars and gloves, which also doubles as a stuff pocket. [▶](#)

Mark Dearnely testing the Mammut Rime Jacket on the Dent du Geant. Photo: Bruce Goodlad

