

1: Waterproof Jackets

For most of us, the purchase of a jacket represents a significant investment. So just how can you discriminate between the increasing array of products available. Here are some ideas on the criteria you could apply in making your choice.

Materials Used.

Probably the most well established fabric technology is **Gore-Tex®**. Gore-Tex® is a registered trade mark of W.L. Gore and Associates, a company based in Maryland, USA (www.gorefabrics.com). Goretex is a thin film of Teflon (PTFE) based material. Waterproof and breathable, it is usually bonded to a nylon layer of some kind (often a ripstop or taffeta). This is referred to as 'two ply' construction. Another layer may be bonded to the other side of the Gore-Tex® film so that the PTFE is sandwiched in the middle of a three layer laminate ('three ply'). This third layer is usually some very light, open weave material (typically nylon tricot) to keep weight down and maximise vapour transmission.



Triplepoint® Ceramic is a registered trademark of Lowe Alpine. It is a breathable coating applied to nylon face fabrics and absorbed into the weave of the fabric.



Sympatex is a membrane technology based on a non-porous polymeric structure. It provides high levels of protection from wind and rain and is breathable. It can be laminated to most types of textile.

Clothing made from **Nikwax Directional Fabrics®** are designed to keep off the rain and pump water away from your skin, protecting your insulation and keeping you warm and dry. These fabrics can be indefinitely renewed by caring for them with Nikwax® products while the fabric itself remains very soft, pliable and lightweight.



In addition to the above, many of the major manufacturers now have their own proprietary fabric technology delivering waterproofing and breathability. The fabrics available differ in how they feel (stiff vs soft) which may affect their weight and durability. A stiffer fabric may be more resistant to damage but may be heavier.

① Overall Design

A jacket that opens all the way down the front offers greater flexibility in terms of ventilation than one that pulls over the head - particularly when wearing a backpack. However, the front opening represents a weak point in preventing water penetration so storm flaps are essential.

② Fit

Needless to say, the jacket must fit properly. It should allow you to wear a number of layers under it, including a fleece, but shouldn't be so baggy it reduces the effectiveness of the moisture control. It shouldn't be too long, restricting your movement, or too short, where it can ride up and expose your back. Devices for adjusting the fit, such as waist drawcords, should be in the right place for your particular body length - particularly important for women.

③ Zips

Zips have two functions - to provide access and to help ventilation. Ventilation control can be further improved with underarm zips, but to be really useful, these need to be easy to access while you're wearing your backpack or rucksack. Some jackets also include internal zips to allow the fitting of a 'compatible' fleece. This may not be that useful if you want to 'delayer' quickly. (See Clothing section in Hill Skills.) Zips must be waterproof and this is usually achieved with a Storm Flap. However, a less bulky alternative (especially for underarm zips) is the use of a water resistant zipper - but water resistance does not mean waterproof!

④ Pockets

As a minimum there should be a pocket which can hold your map and compass plus somewhere to put your hands. It's worthwhile checking that you can access the pockets when wearing a belted backpack. Pockets should have storm flaps to reduce the chance of rain getting inside. Aside from this, number and location is down to personal preference.

⑤ Hood

The key consideration here is that the hood will adequately cover the head whilst you are wearing a suitable hat. Hoods which incorporate a plastic 'stiffener' round the face opening helps the hood retain its shape. Draw strings will help keep out the worst of the weather. You should also look at the face guards on the hood. Do they provide good protection when fastened? Is there a gap between the face guard and the collar where water can penetrate? Does the face guard flap round annoyingly when undone?

Whether the jacket has a hood which is fixed (permanently out) or one which can be detached or rolled away is a matter of preference. Generally speaking, the fixed hood will provide better overall protection but may mean that the jacket is less acceptable for more casual use.

⑥ Cuffs & Collar

Cuffs should have a means of tightening and loosening - like drawstrings or velcro®. The collar should be able to be fastened right up under the chin and be integral with the hood's face guard.

⑦ Care and Maintenance

Jackets usually come with care instructions supplied by the manufacturer. The instructions will advise on how to wash and dry the jacket. Most will include guidance on how you can reproof the fabric. Reproofing will usually be necessary after a few years although this depends on how often you've used the jacket and the quality of the material.

The first sign that you need to reproof will be the appearance of wet patches on the outside of the garment. (This is often referred to as 'wetting out'.) It will appear as if the jacket is leaking but in most cases this is not the case. When the water repellent fails, water builds up on the outside of the fabric. This reduces the breathability of the fabric allowing water vapour to build up on the inside of the jacket. Eventually this soaks the clothing next to your skin.

Allowing dirt or grime to build up on the surface of the fabric will also reduce breathability and produce the same effect. Keeping your jacket clean is also very important.

⑧ Colour

Jacket colour is down to personal preference - but bright colours are a lot easier to spot by the emergency services!

