

## **Base Layers**

Key points:

- 1. Never use cotton base layers.
- 2. This layer is a wicking layer to keep you dry and comfortable.
- 3. This layer is not a layer to keep you warm, so silk weight is all you'll need.
- 4. Look for either polyester or polypropylene in synthetics.
- 5. Synthetics offer superior moisture wicking.
- 6. Avoid nylon as it tends to retain more moisture.
- 7. Merino wool is non-itch and has natural anti-microbial properties.
- 8. Blends try to bring together the best features of synthetics and wool.
- 9. These must fit quite tight to be effective at wicking moisture.
- 10. Wash with tech wash and never use fabric softener as it reduces the wicking properties.

## Mid Layers

**Key Points:** 

- 1. Never use cotton mid-layers.
- 2. These are your insulating layers that keep you warm.
- 3. They transport moisture from your base layer to your Hard/Soft Shell



4. They have a lot of the same properties as Base Layers.

5. Be sure to have a good selection of different weights (thicknesses). This gives you lots of combinations to work with.

6. Avoid down as a mid-layer as the down retains moisture, mats and

clumps – reducing insulation value to near zero. Down is difficult to dry in the field.

7. Synthetic fibre-fill products must be fitted under a generously sized Hard/Soft shell to prevent compression of the fibres.

8. In this category look for fleeces, sweaters, half-zip tech tops, and stretch soft shell pants.





## Hard and Soft Shells

Key Points:

- 1. This layer has two purposes to keep your inner layers dry and to shield you from wind.
- 2. Hard shell waterproof/breathables work on a temperature gradient and humidity gradient. The greater the difference between the outside temperature/humidity and the air inside of your shell the better the breathability of the shell.
- 3. May have 2 or 3 plies face fabric + membrane or face fabric + membrane + inner lining.
- In a hard shell look for products with Gore-Tex<sup>™</sup>, Entrant<sup>™</sup>, The Northface, Futurelight<sup>™</sup>, e-Vent<sup>™</sup>, Schoeller c\_change<sup>™</sup>, and Pertex Shield<sup>™</sup> membranes.
- 5. Check to be sure that all seams are seam taped. If seams are not taped the product is not waterproof.
- The face fabric absolutely must repel water so that the membrane can breathe

   water must bead on the surface. Water sheeting on the face fabric means it
   is time for retreatment.
- 7. The face fabric is treated from factory with a DWR (durable water repellency) treatment which normally lasts for 5 to 6 launderings.
- 8. Always launder items with a tech fabric wash or free rinsing soap. Rinse the garment thoroughly any residual soap/detergent will negatively affect the water repellency treatment performance. NEVER USE FABRIC SOFTENERS.
- 9. Look for products with venting zippers (on jackets) in the chest area, under arms (pit zips) and on the back panel. Some products will vent down the entire side (jackets and pants).
- 10. If a hood is desired be sure to check to see if the hood has adjustable volume so that helmets can be accommodated take your helmet with you for the fitting.
- 11. Cycling specific jackets often do not have hoods and are cut long in the back for the bent forward riding position. If a hood is desired look for a similar product in the Hiking area of the retailer. Check to see if the back is cut long enough to ensure your back is covered in the bent forward riding position.
- 12. In pants, look for an articulated knee that allows for the pedaling movement.
- 13. Built in gators in both pants (legs) and in jackets (arms) ensure dry, draft-free comfort.
- 14. Reinforced areas on the insides of legs ward-off brushes with the crankset are a bonus.

## Down/Fibrefill Products

Key Points:

- 1. Down/Fibrefill jackets, vests and pants are best used for situations where you are stopped for extended periods such as stopping to eat/drink, repair a flat or mechanical problem. Put them on over your mid-layers.
- 2. Remove the down garments and put on your shell when you resume riding.
- 3. Look for the "Fill Power" of a down item. This gives an indication of the insulating capacity of the garment. 600 fill power and above indicates high quality down has been used in the construction of the garment.
- 4. Down sweaters are ideal companions to carry in your day pack. They are light, compact down to fit into their own pockets and provide ideal staywarm pieces.
- 5. Most fibrefill products will not compress nearly as much as down will but offer one key advantage they will insulate even after that fall into the creek.
- 6. Just as with all other outdoor garments the face fabrics are treated with DWR products and these treatments will last 5 to 6 launderings and then must be reapplied.





