

TUMI02

MANDATORY GEAR LIST

All athletes must carry the following mandatory gear at all times during the race.

No mandatory gear = no start!

- Headlamp** – plus either: one set of spare new batteries, a second headlamp or a portable USB charger
- Thermal layer for torso** – long sleeved top made from quick-drying thermal fabric such as wool/polypropylene/merino. Cotton, coolmax, lycra and compression garments are not acceptable
- Thermal layer for legs** – long leggings made from quick-drying thermal fabric such as wool/polypropylene/merino. Cotton, coolmax, lycra and compression garments are not acceptable
- Thermal hat** – made from wool/polypropylene/merino (Buffs are accepted but must meet thermal requirements)
- Thermal gloves** – made from wool/polypropylene/merino
- Waterproof jacket** – MUST be seam-sealed/taped and have a hood (example [here](#))

Recommended, but not mandatory:

- Mobile phone** – charged and in a waterproof container or a zip lock bag. Must be able to make and receive phone calls/text messages while you are in New Zealand
- Water bottle/collapsible cup/hydration vest or bag**, as it is a cupless race

Explanation of Requirements of Thermal Garments

Suitable garments:

The mandatory thermal items must be made of either a high performance synthetic material that is made up of fibres which are hydrophobic (ie they do not hold water) or they can be made of lightweight wool (wool does absorb water but it remains warm to wear when wet due to warm air being trapped in lots of tiny air pockets). Garments made of synthetic materials such as polypropylene, polyester and chlorofibre (PVC) are perfect as the fibres do not hold moisture. Garments made from these materials can feel slightly damp in wet conditions but that is because moisture is held in the tiny spaces between the fibres. As the fibres do not get wet these garments will actually dry out from your body heat while you are wearing them and there is no evaporative cooling effect as the moisture evaporates from the spaces between the fibres. Modern thermal materials may use a small amount of spandex, elastane or Lycra to provide greater shape retention, tighter fit and therefore greater warmth. Garments made of a material that is 94% polyester and 6% spandex are perfect.

Not suitable:

Garments made mostly of synthetic materials such as lycra (a polyester-polyurethane copolymer) and coolmax (which is polyester with fibres amended so they do absorb moisture) are not suitable for this event as they hold moisture against your skin and they also wick moisture away very well thus causing substantial evaporative cooling. All compression garments are made of mostly lycra so they are not suitable as your mandatory thermals in this event. Cotton is also unsuitable as it absorbs water and holds the moisture against the wearer's skin. Unlike wool, cotton has no bulk to trap warm air so the wearer remains cold. In search and rescue circles cotton is called "The Fatal Fabric" and "Killer Cotton" for good reason - people die every year when caught out in the elements wearing cotton garments. Other people also caught out in the same conditions who are wearing synthetic and/or wool survive – it's a very clear cut issue.