WARMZIP

THERM-A-REST

Boost 650™ 20F/-6C & 32F/0C Sleeping Bags & WarmZip™

Boost Your Bag up to 10°F/6°C

Quick Facts

- WarmZip is a patent-pending topside zipper, running down the center from torso to footbox, that converts the Boost 650 from a semi-rectangular bag to a mummy bag. When zipped up it adds up to 10°F/6°C of warmth.
- While most sleeping bags have a *fixed* shape, the Boost 650 is *configurable*. WarmZip allows it to fluidly change shape to adapt to varying conditions and individual preferences.
- The current EN/ISO temperature rating test is not equipped to measure fluctuating variables that affect sleeping bag warmth, such as a sleeper moving around or WarmZip changing a bag's shape.



How does WarmZip boost your bag's warmth up to 10°F/6°C?

- Mummy bags sleep warmer than rectangular bags by bringing the insulation in closer to your body and reducing the amount of internal space (or 'dead air') that needs to be heated. Bottom line, they are more thermally efficient.
- When the Boost 650 converts into a mummy bag, your body won't expend as much energy to heat up the air in your bag and the insulation will trap the warmth closer to your body, making it feel considerably warmer.

Does the Boost 650's EN/ISO temperature rating include the boosted warmth from the WarmZip?

- No. The displayed EN/ISO temperature rating measures the Boost 650 in its default semi-rectangular shape.
- The current EN/ISO methodology tests only *fixed variables* and cannot test the thermal fluctuations of the shifting 'dead air' within the Boost 650 as it changes shape. As a static test, it yields consistent, repeatable results that provide consumers a standard by which they can reliably compare sleeping bags, but it does not capture real world warmth experiences that are affected by many fluctuating variables.
- *Example:* the EN/ISO test manikin does not move during the test, but real people move in their sleep. When you move you create new air space, and your sleeping bag acts as a bellows drawing in cold air through the hood to fill up the new space. This is an effect on sleeping bag warmth that the EN/ISO tests can't quantify.

Was the WarmZip effect measured at all?

- Yes! Using our on-site cold chamber and test manikin, we are able to quantify **meaningful and consistent improvements in thermal retention** when transitioning from a semi-rectangular to a mummy shape with WarmZip.
- Testing heat flux is not part of the strict EN/ISO procedures and the data collected from our internal validation testing can't be claimed as an EN/ISO temperature rating.

What is the real-world experience with WarmZip?

- Field testers' experiences confirm the WarmZip effect. One tester stated, "I woke up cold, zipped it up, got warm, and didn't wake up again. I was kind of shocked just how much difference that zip made."

In conclusion...

- The combination of: (1) our knowledge of the differences in thermal efficiencies of rectangular vs mummy bags; (2) test data proving WarmZip thermal efficiency improvements; and (3) field test responses confirming significant and tangible warmth change lead us to confidently claim that the Boost 650 WarmZip feature allows users to boost their bag up to 10°F/6°C.