

SLEEPING BAG EN 13537 RATINGS

WHAT IS EN TESTING?

EN stands for European Norm, a testing protocol initiated in Europe and now used globally to determine temperature ratings using a standard laboratory test. EN testing produces a range of temperatures designed to communicate how the bag sleeps in different conditions, for different genders.

EN Comfort Rating (t-comfort):

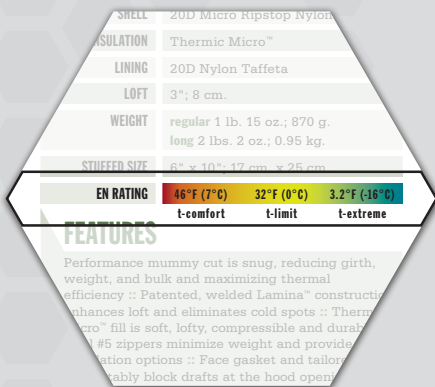
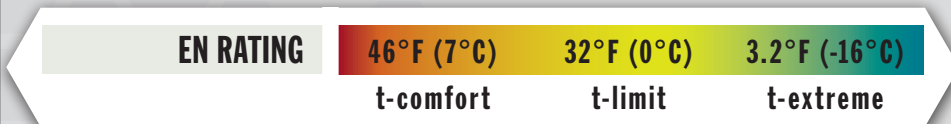
The lowest outside air temperature at which a “standard” woman can sleep comfortably in this bag.

EN Lower Limit Rating (t-limit):

The lowest outside air temperature at which a “standard” man can sleep comfortably in this bag.

EN Extreme Rating (t-extreme):

This is a survival only rating for a “standard” adult woman. This is an extreme survival rating only and it is not advisable for consumers to rely on this rating for general use. The best temperature guidelines for purchase decisions are the t-comfort and t-limit ratings



At Mountain Hardwear, we test all our bags to ensure consistency, however we do not rely on this test alone to determine a bag's temperature rating. We rate bags on the following criteria:

- Loft and fill weight (traditionally the most reliable way to determine temperature rating)
- Field testing
- EN test data

We do not utilize the EN test for bags at 0°F/-18°C or under. Why?

Due to the nature of the testing procedure, the test diminishes in accuracy at temperatures near and below 0°F/-18°C.

EN TEST METHODOLOGY

The EN 13537 temperature tests use a thermal mannequin which is a full size humanoid dummy with heaters and temperature sensors. The mannequin is placed inside the sleeping bag and both are placed in a climate chamber. The mannequin is heated to simulated body warmth. The air temperature is measured in the climate chamber and on the skin surface of the mannequin. From these measurements, the insulation value of the complete sleeping bag is calculated.

The temperature recommendations are defined by EN 13537 based on the measured insulation.

